American Aviation

The Independent Voice of American Aeronautics **APRIL 1, 1946**

Cut CAA In Half

THE TIME has come when a very thorough examination should be made of the efficiency of the Civil Aeronautics Administration in relation to its size.

Unless some sort of brake is applied the nation and the entire aviation enterprise are going to be saddled with a powerful and costly goliath for which the public and for which those participating in aviation have not asked. We fear the CAA is becoming a repository of federal jobs, of inefficiency, of bureaucracy, that will in the long run become a vast tax burden without producing commensurate results.

FortNightly Review

Here we have a nation of some 140,000,000 persons with relatively the greatest freedom of any people on earth. We have a country susceptible of great aeronautical development in which the airplane has a multitude of commercial and personal uses. But already, with something over 30,000 civil and commercial airplanes in use, we have a third as many employes on the federal aviation payroll as there are airplanes.

Something is radically wrong. Granted that there are areas of regulation and promotion in which the federal government should rightfully play its part, the present trend is actually toward a self-contained but tax-supported federal agency which is heading toward a form of socialized paternalism with which the people are not in sympathy and do not want to support.

There is quite a rumpus over the CAA's plan to repair its own airplanes. Of and by itself the proposal makes sense in a number of ways. But put into the general picture of expansion, payrolls and minute regulation of everything in civil aviation, the proposal is unhealthy to say the least.

Starting July 1, the CAA plans to charge a small fee for all pilot and other airmen licenses, and for transfering title of airplanes, and the like. Of and by itself, this makes sense in more ways than one. If all of this registration business is so important, then a small fee for each registration isn't out of line, but in order to analyze the whole picture of where CAA is going, one must get back to an original basis of whether all of the registration is necessary to start with.

Within the past few weeks the CAA has brought out two booklets to aid the private flyer. One is called the Path of Flight, dealing with navigation; the other is called the Realm of Flight, dealing with weather problems and the like. One can find little criticism of either book as far as the contents go. One sells for forty cents, the other for sixty cents, obtainable from the Government Printing Office. But one might well raise the question of whether publication of booklets on private

(Turn to Page 6)

Twenty Years With Pioneer Airline

Charles N. "Jimmy" James, vice president-operations of Western Air Lines, the first U. S. airline to reach its 20th birthday this year, was pilot of the first Douglas biplane inaugurating the airline's pioneer service, April 17, 1926.

In This Issue

25c

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American Aviation

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Other Publications and Services:

American Aviation Daily: The only daily news service for the aviation industry. Published daily except Sundays and holidays since 1939. Dispatched via airmail or surface mail for overnight delivery in the United States. Subscriptions: $15 one month, $170 one year. Airmail delivery to points outside the United States at additional cost to cover postage. Service Bureau available to all subscribers. CLIFFORD GUEST, Managing Editor.

International Aviation: A weekly newsletter of aviation trends and news in foreign countries. Published on Friday of each week and dispatched via first-class surface mail. Editorial representatives in foreign capitals. Subscriptions: $100 one year (52 issues). Airmail delivery available at additional cost to cover postage. Service Bureau available to all subscribers. FRANK M. HOLZ, Managing Editor.

American Aviation Directory: Published twice a year, Spring and Fall. Complete reference data on administrative and operating personnel of airlines, aircraft and engine manufacturers, accessory and equipment manufacturers, organizations, schools, U. S. and foreign aviation groups and departments, etc. Completely cross-indexed by companies, activities, products and individuals. Single copy $5.00. Fall-Winter 1945 issue now available. DAVID SHAWE, Managing Editor.

American Aviation Traffic Guide: Monthly publication of airline schedules, rates and regulations for passenger and cargo transportation by commercial air transport. Supplements furnished subscribers covering changes occurring between issues. Subscriptions: U. S. and Latin America $5.00 one year (12 issues and supplements); Canada $5.50. All other countries $6.50. Published and revised from editorial offices at 139 North Clark Street, Chicago 2, Illinois. (Telephone: State 2154). H. D. WHITNEY, Managing Editor.

Research and Library Department: For the convenience of subscribers in obtaining aviation information; bibliographic data on aviation books and periodicals available. Address inquiries to American Aviation, Research and Library Dept., Washington 4, D. C. AGNES A. GAUTREAUX, Director of Research and Librarian.

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Editorial

(Continued from Page 1)

flying is a proper function of the CAA. Of course the CAA can point to the law—the law having been written in such broad terms that virtually anything is permissible. But here is another example of the CAA going into private business to promote something. Even supposing the booklets "pay" for themselves, the project reeks of paternalism and there is a big question whether the taxpayers should pay for all the overhead that goes into such government publications.

A one-time CAA employee who is widely-respected today in his job in private industry and who has no axe to grind, wrote the other day of his experience when he joined CAA.

"I found great opposition, high and low, to anything resembling efficiency," he relates. "As a matter of fact a 'high' official of CAA (who is no longer there) came to me one day with the inquiry as to just what I was trying to do. I tried to explain that my efforts were directed toward cutting red tape and getting the job done. He was horrified that anyone should spend useless effort in such a manner and advised me that the more red tape involved the more personnel that could be employed and consequently the bigger my position would become . . .

"On visits to some of the regional offices I have seen cases of as many as seventeen people doing the work that before 1940 was ffectively and efficiently accomplished by two or three.

"It isn't that the regional men are necessarily of lesser calibre or energy, in fact a few of the old-timers still dot the field force. It's been the increasing details, red tape and policing duties that have been assigned take up so much of their time that they can't see the forest for the trees.

"In my opinion it is asinine for the government to try to set up an inspection force which duplicates that of the industry. Industry personnel are in general better qualified as regards flying or mechanical aptitudes and experiences than the CAA man who is trying to duplicate their work. We therefore cannot expect much improvement in operations or safety simply by having an overwhelming number of CAA personnel interfering with the work of better men. And therein lies the rub.

"If the CAA would retract about 99% of the details assigned to field personnel, cut out most of the red tape and develop a kind of thinking that presumes a few people in the industry to be honest and upright citizens, the number of CAA personnel could be cut to a small percentage of the number now required and at the same time accomplish a great deal more than is now being done to *promote, develop* and regulate aviation."

CAA has become a big business in itself. Is it needed? Is it in the national interest to have a big unwieldy federal organization for regulation? Where is the line to be drawn for ever-increasing CAA enterprises? If there are just under 11,000 employes today, how many will there be in five years?

If the CAA cannot today perform its functions with 4,000 persons—5,000 at the very most and that's being mighty generous—then it's time to start clearing house. This is the challenge before the present able administrator, T. P. Wright, who is becoming more swamped every day by the red tape, misleading proposals and conniving of men who are leading the CAA into one of the worst examples of federal bureaucracy the country has yet seen. If CAA says it is short-handed and needs more people to do its work, then it has carved out for itself (and not at public request), a lot more work than it was ever intended to have. Cut CAA in half and perhaps we can regain some efficiency. Or perhaps we had best turn aircraft manufacturing, airline operation, airport operation, aviation publishing and everything else into the CAA and make it 100% government.

Move to Paris?

THE WORLD governmental aviation organization called PICAO is having its growing troubles but the troubles are coming not from friction and conflict but from lethargy and lack of interest on the part of most of the participating governments.

PICAO got off to a booming start following the Chicago international aviation meeting late in 1944. It was to be the big and powerful international body to foster, promote and—to an extent—regulate world aviation. But after its auspicious start, PICAO is moving ahead quite slowly and guided primarily by a lone tireless leader in the person of Edward P. Warner, its president.

Facing the world assembly in its May meeting at Montreal is a question of utmost importance. Is PICAO to remain in Montreal, or will it move to Paris as the French are trying to persuade it to do. An important principle is involved and those who are interested in having PICAO become a constructive and worthy force for world aviation had best pay heed or the whole organization will be transferred to Europe. And with it will go the world headquarters IATA.

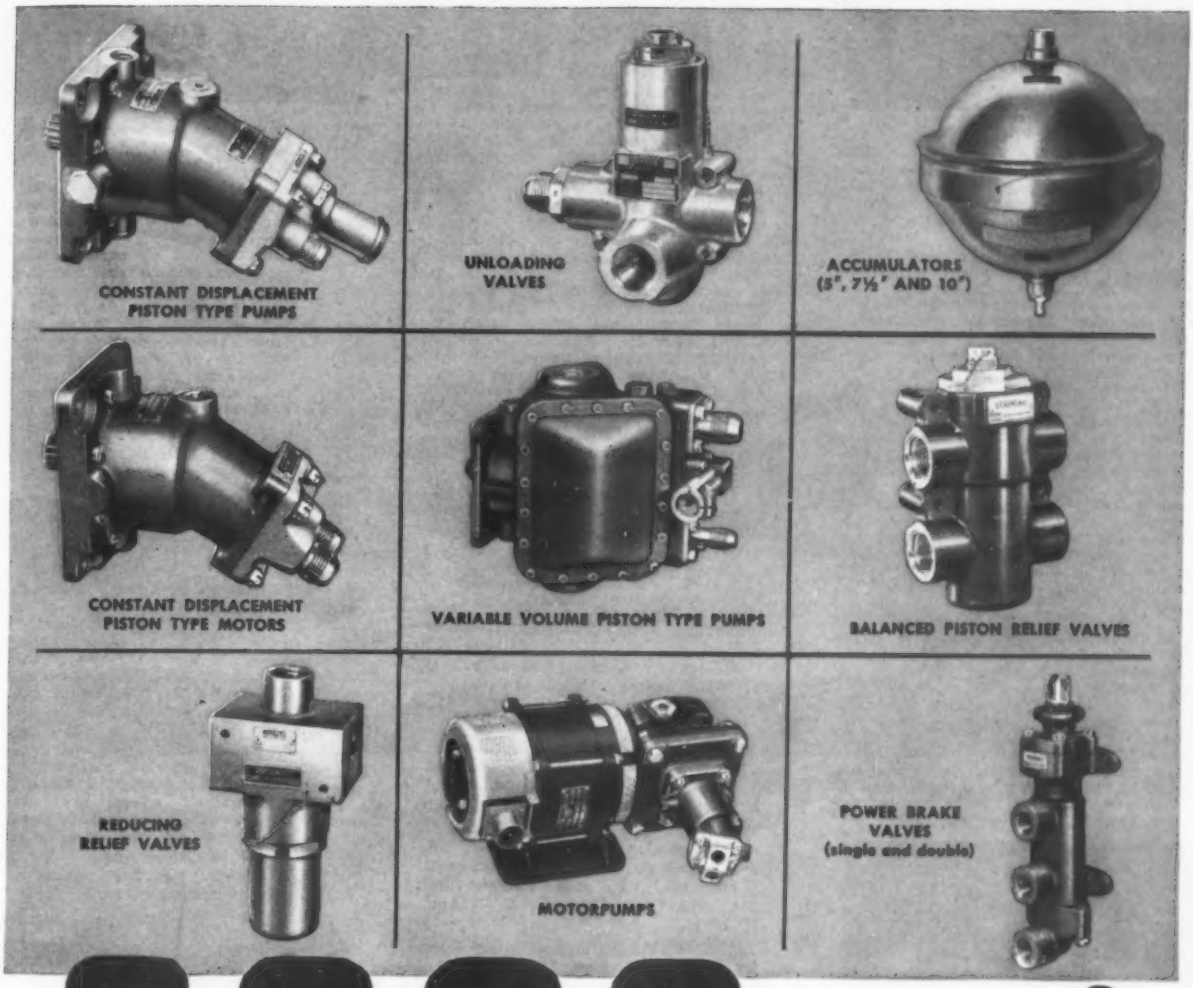
We share the feeling of many when we say that if PICAO moves its headquarters to Paris, it might as well be forgotten as a major world force in aviation. It will meander off to become an impotent, academic and antiquated hulk of the kind that existed before the war. When we say that PICAO belongs in the western hemisphere we do so for no purposes of nationalistic pride but because the big volume of actual operating aviation is being sparked on this hemisphere.

Today the United States and Great Britain are holding up PICAO and keeping it alive and kicking. The Latin American countries which expressed great enthusiasm at the Chicago meeting, have shown negligible interest.

The shocking surprise in PICAO is the lack of interest by the Canadian government. After extending a warm invitation to the world to make Montreal the aviation headquarters, it has done virtually nothing on behalf of PICAO, whether it be granting diplomatic immunity or taking initiative in obtaining that floor of office space in Montreal's Sun Life Building which PICAO needs.

The United States did not want PICAO. There would be a natural and inevitable feeling by smaller nations that the U. S. was trying to dominate the show. But if the vote goes against Canada, it would be far preferable to select a city in the United States, or Havana, or Mexico City, than to permit PICAO to go to Europe. In the western hemisphere air transportation is a reality today, not an academic subject. With 53 daily round-trips between New York and Boston, with 47 daily round-trips between New York and Chicago, and 54 coast-to-coast daily round trips (including Canada's), when new equipment is just barely beginning to be placed in service, air transportation is coming into its own. Any international aviation organization worth its salt must be attuned to actual developments. Move PICAO to Paris and it's a dead duck.

WAYNE W. PARRISH



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Letters

To the Editor:

In a past issue of your magazine an editorial reported that the Secretary of Commerce intended revamping the Weather Bureau. With due respect to the Weather Bureau I wish I could tell the Secretary to hurry up.

An inadequate number of weather observations is a drawback to the aerological program. A pilot asking for weather at a station ahead has a rather empty feeling when he wonders whether or not the report given for the station is actually the condition existing, if the time given on the report is that of the last sequence or check weather—then probably one-half hour old.

One dislikes to blame the weather observer who has plenty of work to do one or two floors down from the roof. This is alright in good weather but in bad weather the map work and phone calls, which are also assigned to the observer, get heavier. Needless to say the observer needs to be housed on the roof. Still better in a tower at the edge of the field away from the ever glaring lights of the administration building. A weather tower at each station would make it possible for accurate check observations to be taken for most all the requests. This check to be given to Air Traffic Control, Airways Radio, and other operations by recording intraphone.

This takes more personnel, buildings, and equipment. In short more appropriations with directions for use specified. I wonder if this is one of the things the Secretary has in mind? I hope so.

I have read the letter in Jan. 1st issue signed by 10,000-Hr. Pilot," also an answer to it in Feb. 15th issue. Maybe I have had enough experience to say the two authors are both right and both wrong. The obstruction to vision, mentioned by the pilot in the first letter, was smoke. Smoke, advection fog, and patches of ground fog each have a tendency to vary in intensity and vary in position in an area as small as an airport. Other obstructions to vision are more uniform for the given time in question.

A weather observer taking an observation gives the horizontal distance observed from his point of view. He (or she) is not on the other side or end of the field. If the observer had time to make a quick circle of the field for each observation the obstruction to vision would have probably shifted again by the time of his return. It is an old complaint and something should be done about it. A qualified observer stationed at each corner of the field might be the answer—which means more paid personnel. At present, the answer is probably the same as before: Left to the discretion of Airport Control Tower.

N. H.,
Atchison, Kan.

Wings of Yesterday

Fifteen Years Ago

Jean Mermoz and Anthoine Paillard established a closed circuit distance record of 5,679 miles at Oran, Algeria. They flew a Bernard 80 equipped with a Hispano-Suiza engine. (Mar. 30, 1931)

Lt. Comdr. Glen Kidston flew from London to Cape Town, South Africa, in six days, 10 hours, establishing a new record. He piloted a Lockheed Vega equipped with Pratt & Whitney Wasp engine (Mar. 31-Apr. 6, 1931).

Eastern Air Transport, Inc., inaugurated air mail service between Richmond, Va., and Jacksonville, Fla., via Charleston, S. C. (Apr. 1, 1931).

Charles W. A. Scott flew from London to Australia in 9 days, 3 hours, 40 minutes, establishing a new record. A De Havilland Moth 60M equipped with a De Havilland Gipsy II engine was the type plane used. (Apr. 1-10, 1931)

Twenty-five Years Ago

Aviation Units were authorized for the New York National Guard. (Mar. 27, 1921)

First seal hunt was made by airplane off Botwood, N. F. (Mar. 28, 1921).

Capt. Lowell H. Smith, U.S.A.S., with a detachment of the 91st Aero. Squadron, completed aerial survey of cyclone area, Olympic Peninsula, Wash. (Mar. 31, 1921)

Third Annual Aviator's Ball was held at the Waldorf-Astoria, New York (Apr. 7, 1921).

A bill was introduced in the House by Rep. Julius Kahn seeking to regulate air navigation within U. S. and dependencies, and between U. S. and any foreign country. (Apr. 11, 1921)

Bill 2815 was introduced in the House by Rep. Frederick C. Hicks, proposing the creation of a Bureau of Civil Aviation in the Department of Commerce (Apr. 11, 1921).

President Harding, in his address to Congress, recommended the establishment of a Bureau of Aviation in the Department of Commerce for the Federal regulation and encouragement of air navigation. (Apr. 12, 1921)

Books

THE MODERN WONDER BOOK OF THE AIR, by Carlisle, Cleveland and Wood; John C. Winston Co.; 314 pages; $2.50.

A particularly fine book for junior and senior high school students. It covers all phases and applications of aviation from gliders to crop dusting to women aeronauts. Each chapter treats a different subject, giving historical background, war-time uses and something of the future. True examples are drawn from industry, the Army and Navy, and private achievements. Illustrations are copious and excellent—mostly photographs. Worthy of note are the chapters on the Army airways communication system, stratosphere research, and airships. A better than average book with wider coverage than most. Meat for the air-minded youth.

A. V. McL.

AIRPORT BUILDINGS, prepared by the Civil Aeronautics Administration; Obtainable from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.; 86 pp.; 20c.

This booklet discusses the problems of airport building design and is more of an outline than an exhaustive treatment. Prepared by the airport division of the CAA, it should find a ready usefulness throughout the country as cities and communities start tackling the ever-increasing problems of airport development.

Subject material is divided into two sections, one for terminal airports and one for personal-flying airports. Airport plans, aprons, administrative areas, terminal group, concourse, building, offices, mail and express, customs and immigration and the maintenance area, are each given attention. There are 18 figures.

This is the first practical booklet of this kind to be published by CAA.

Booklets

An illustrated booklet on gliding and soaring, "Birds of a Feather," has been prepared for distribution by Schweizer Aircraft Corp., Elmira, N. Y.

Bendix Radio Division has issued a "Radio Sketchbook of Personal Aviation" containing crayon portraits by John M. Sitton of leading figures in the personal aircraft industry together with brief biographical sketches of each man, to promote its Flightweight personal aircraft radios.

Proceedings of National Aviation Clinic, 1945, held in Oklahoma City on Nov. 19-21, are now available in book form. All Clinic registrants receive copies (payment included in registration fee). Other orders will be filled at $2.65 per copy by Times-Journal Publishing Co., 100 E. 2nd St., Oklahoma City. The book contains transcripts of all addresses, discussion, action on resolutions, attendance roster, Clinic committees and delegates.

Convair has reprinted in brochure form several of its recent advertisements featuring the air power theme and preceded them with a message from President Harry Woodhead. Its title is "A Message to Leaders of American Thought from Consolidated Vultee."

"Eighty Million Air Passengers Each Year," a statement on the role of the helicopter in inter-community transport, has been prepared by E. Burke Wilford, president of Helicopter Air Transport, Inc., Wilford Bldg., Philadelphia, Pa.

Bermuda Air Pact

An island is a tract of land, smaller than a continent, "surrounded" by water. The globe is "enclosed" in air 100 per cent.

GLOBAL air transportation presents problems entirely without precedent to guide nations. That is why the Anglo-American Civil Aviation Conference, held recently in Bermuda, is an important step forward in international air transportation.

Centuries were required for nations to arrive at today's "Freedom of the Seas." Yet, that task was relatively easier than arriving at agreements to enable all peoples to benefit from world-wide air travel because:

Steamships depart from land where people live, travel in waters not inhabited by people, and stop at land where other people live. Since our globe is the core of a ball of air, transport planes can travel in any direction above both land and water. This means that, by air, people can travel from any inland or coastal city and reach any other inland or coastal city—an impossibility with any other form of transportation. Then, too, aircraft travel at speeds unapproached by surface vehicles. When all factors are considered, the reasons are clear why nations cannot wait centuries to agree upon "Freedom of the Air."

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Background a

(Significant Developments and Forec

Bas

Landing Fees Becoming Serious Problem: The question of what landing fees should be charged at airports throughout the country has become one of the most serious issues in the aviation picture. The scale of landing fees varies greatly, but in many places operators and private flyers have found them too high to permit economic operation. What high landing fees will do to the expanding non-scheduled business is another serious problem. Civil Aeronautics Administration has instructed its field men to make immediate reports on landing fees charged at airports in their regions, so that a comprehensive overall study can be made.

Contract Weather Service: One of the big problems facing airlines operating to Europe now that the AAF has pulled out most of its big wartime reporting service is the obtaining and dissemination quickly of accurate weather information. Despite the prewar airline flying in Europe, the weather service wasn't up to U. S. standards. One proposal has been made by Irving P. Krick, who served with ATC as a lieutenant colonel, and who founded the Krick Weather Service in California. He wants to organize a weather service especially for airlines in Europe with each company sharing the costs. One of the men interested with Krick in the proposal is Kenneth A. Willard, major in ATC, who was with American Airlines 1935-38 and with Parks Air College from 1938 until he entered the Army.

Free Trainers for Flying Clubs?: Although local operators probably would oppose the move quite strongly, some flying club enthusiasts have wondered why the government cannot give them surplus planes at the same time it is giving planes and equipmen to schools. There are about 12,000 trainers still unsold as surplus. But the present law provides that disposal on a "free" basis (that is, for disposal costs) can be granted only to tax-supported non-profit educational institutions. For all other surplus, War Assets Corp. must receive "fair value" of the surplus property. Any liberalization of policy would need Congressional legislation. So far 5,000 schools have received 711 aircraft and other surplus material originally worth $71,000,000.

Lockheed's Super Promotion: Lockheed Aircraft Corp. is in the midst of the greatest super-dooper transport advertising campaign ever undertaken by an airplane manufacturer. Directed almost exclusively to the consumer, it is using many techniques new to the aircraft-building industry such as billboards, electric spectaculars and even television. One puzzling angle is that billboards, etc., are being used in areas far away from airlines using or about to use Constellations and so far only TWA is providing Constellation service domestically. But the campaign is attracting much public interest. One minor phase of the program has rubbed a few airlines the wrong way and that is the mention of increased safety with four-engined equipment. Most airline people want the public to identify four engines with speed and range—not with safety. A few sparks are flying from makers and users of twin-engined airplanes.

Keeping Seats Filled: Sales competition among airlines is beginning to get underway with a bang and every wrinkle in salesmanship will make its appearance this year. Airline industry seating capacity may well increase as much as 350% by the end of the year and top traffic execs fear high load factors will start dropping off. Sales forces are being increased. American's passenger sales director Herb Ford expects to see a 50% increase in the company's sales staff by the end of the year. All airlines are concentrating on formal training courses for salesmen. Much expansion in the cargo field can be expected too.

British to Pass U. S.?: The British have abandoned virtually all aircraft designs involving conventional power units and are devoting all attention on jet and turbine work with the hope that in three years, long before American manufacturers get through building conventional-designed and powered transports, they will take over leadership in transport output. It is generally conceded the British are considerably ahead of U. S., today, in jet and turbine development. It is also conceded here that jet and turbine-powered planes must be designed around the power units Whatever happens, the British won't be lagging behind in transport three years from now—and maybe they will succeed, as they hope to do, in selling British power units in the U. S.

...and Trends

Based on the Fortnight's Top News)

CAA's Hot Political Issue: Some members of Congress are looking with strong disfavor on the CAA plan to set up repair bases for CAA airplanes. Congressional treatment of the plan quickly resolved into a party-line fight as a subcommittee of the House appropriations committee took the issue under consideration. Administration forces were being led by Rep. Louis C. Rabaut, of Michigan, chairman of the subcommittee, who maintained the government would save money by the CAA proposal. Outstanding opponent, who was supported by local operators over the country, was Republican Rep. Dean M. Gillespie, of Colorado, who sees in the CAA plan a future unnecessary encroachment of government into the field of private enterprise. If Republicans lose in committee they will carry the fight into the full appropriations committee and finally to the floor of the House if necessary.

Canada's DC-? Program: The Canadian Government started out to build combination DC-4 and DC-6 using Rolls Royce Merlin inline engines. Subsequently the Canadians began referring to the project as the DC-6, but today it's anyone's guess what it is. Not long ago Canadair, Ltd., the government factory, purchased over 500 train car loads of surplus C-54 fuselages (26 of them) and material and machines of all kinds from the Douglas war plant at Chicago at 10c a pound. So today Canadair has turned to assembling conventional DC-4s to be powered with Merlins, for use by Trans-Canada until its modified DC-4 (or DC-6) is ready.

Douglas Builds First 50-Mile Rocket: Revelation that the first American-made rocket to leave the earth's atmosphere and penetrate the ionosphere was built by an aircraft maker—Douglas Aircraft Co.—is significant. It means that the hard-fought efforts of a year ago to have development of air-borne projectiles placed under the AAF rather than under the ordnance department are bearing fruit. The Douglas rocket, which ascended to 230,000 feet, is not a war weapon, the scientists say, but a research instrument for the Army and Navy.

Tightening of Pilot Regulations: A tightening of regulations involving responsibilities of air carrier pilots, maintenance and overhaul inspectors and airport control tower operators may be forthcoming as a result of some pressure from Capitol Hill. Application of sanctions against aviation employes who neglect their responsibilities in matters pertaining to safety in flight are being mentioned in responsible Congressional circles. Surprise medical examinations for pilots also have been mentioned.

Fixed Base Research: Agreement by a committee of 14 aviation leaders to continue aiding in an advisory capacity the research work of the Harvard University Graduate School of Business Administration which did a valuable and respected series of aviation business studies during the war, is looked upon significantly and favorably. Next undertaking will be a detailed investigation of the business aspects of small airport and fixed-base operation. Membership of the advisory committee, revealed for the first time, includes: W. A. M. Burden, Ralph S. Damon, Frank F. Russell, Robert E. Gross, George P. Baker, William B. Harding, John A. Herlihy, Albert I. Lodwick, Victor Emanuel, Alfred Marchev, Joseph Garside, H. M. Horner, Edward P. Warner, and C. Douglas Dillon.

Helicopters for Mail?: The Post Office Dept. is keeping an open mind on using helicopters to carry air mail and wants to see it tried. So you can look for the PO to push for action on a certain CAB application for helicopter routes. If such service proves feasible the PO has some 45 places in the U. S. where it can put helicopters to work.

New League Manager?: It has been learned on good authority that Col. Jacob Smart, of the Army Air Forces, is slated to succeed Howard Angus as manager of the Air Power League. Col. Smart had a leading role in setting up the Cadet training program under Gen. H. H. Arnold, former head of the Army Air Forces.

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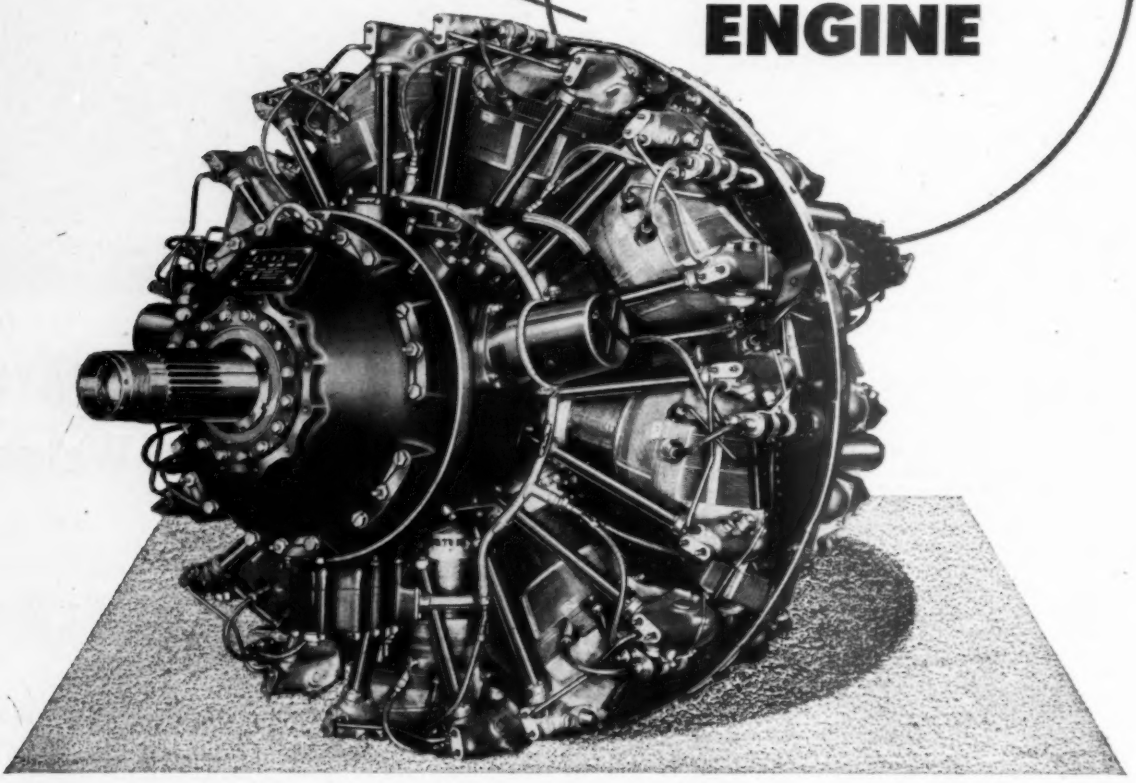

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Airlines Favor PO Proposal for 5c Mail

Industry Support for Air Parcel Post Indicated; Reaction to Lower Pay, All-Mail Flights, Feeder Expansion Delay Mixed

By Eric Bramley

FIVE-CENT air mail and the establishment of an air parcel post system were among recommendations made last fortnight by Second Assistant Postmaster General Gael Sullivan, and most sections of his report were being favorably received by the airline industry.

A deep cut in air mail postage to foreign points also was recommended.

In a report to the Postmaster General, the alert Sullivan, who is acquiring a reputation for getting things done, asserted that all long-haul first-class mail could be carried by air and show a profit (although the Post Office as a whole would show a loss), but that neither the PO nor the airlines are prepared to handle it. He left little doubt, however, that this was the ultimate goal.

With air mail loads dropping (January was 32.47% under January, 1945) the airlines in general welcomed the Sullivan report, believing that the public will increase greatly its use of air mail at a rate of 5 cents an ounce. They also agreed that the time had not yet come to handle all first-class mail by air.

Reaction to other Sullivan recommendations and conclusions, however, was mixed—it was not unanimously favorable. He recommended, for example, that:

1. The airlines receive less pay for carrying the mail.
2. For planes used exclusively for mail, the PO pay the airlines on a charter basis.
3. The method of paying the airlines on a pound-mile basis for carrying the mail is "cumbersome," and another method should be considered.
4. Expansion of pick-up and feeder service should await formulation of a complete mail transportation policy, location of additional highway post office lines, and the outcome of helicopter tests.
5. An Assistant Secretary of State for Air should be appointed.
6. A Joint committee representing the PO, State and Commerce Depts., Civil Aeronautics Board and the airline industry should be established to work on mutual problems.
7. The PO should participate more actively in CAB hearings and make known its recommendations.
8. The PO should be authorized to lease all mail distribution space at airports, rather than have such space furnished by the airlines.
9. Reciprocal agreements should be established with all foreign countries, eliminating interior handling charges, so that a country would receive another country's mail and carry it to interior points without charge.
10. A study should be made to determine effects of establishing the same rates for transporting mail from foreign countries as paid by this country for transporting mail from this to any other country by U. S. airlines. From this would come a reduction in amounts charged most other countries and a consequent reduction in applications for air mail routes to this country, with U. S. carriers probably receiving more mail than now and thus being able to operate at or near capacity loads.
11. The U. S. should transport some mail on foreign airlines and foreign countries should use U. S. airlines.

On the subjects of less mail pay, delaying feeder and pick-up expansion, and possibly charter rates for mail planes, differences of opinion will exist. Most other points meet with general agreement.

Robert Ramspeck, executive vice president of the Air Transport Association, pointed out that ATA already has endorsed 5 cent air mail, and he believes it will endorse the proposal to make possible air parcel post.

With air mail loads dropping, any proposal to cut the airlines' mail pay is untimely and should be defeated unless it can be shown that air mail carriage is costing the PO too much money, Ramspeck asserted. If a big increase in loads results from the 5 cent rate, a reduction might be possible, he said, pointing out that even now four airlines are carrying mail at the same rate as passengers and cargo and that most of the other lines are on a basis where the government breaks even.

How postage on letters to foreign points would be reduced by proposals of the Second Assistant Postmaster General are shown in the following table:

Area	Present Rates	Proposed Rates
Asia and area islands	70c, 50c, 40c	30c, 25c, 20c
Europe	30c	15c
Africa and area islands	Eight rates, from 30c to 70c	20c
Latin America	Four rates, from 10c to 25c	10c

The proposal for paying airlines for all-mail planes on a charter basis may be worthy of exploration, although it comes at a time when air mail loads are off, Ramspeck said. "I can see that some economies might result from operating all-mail planes over the longer routes but many factors will have to be taken into consideration before a decision is reached," he explained, adding that if planes were required to wait unduly for economical loads, this would tend to defeat the purpose of air mail.

Extension of air mail service through feeder and pick-up routes should be scrutinized carefully, he stated. "The airlines are now out of the subsidy class and we should try to keep them from going back into that classification. However, if the people want this type of service and the government is willing to pay for it, the airlines themselves do not want to stand in the way."

The Sullivan report, explaining why the U. S. should have 5c air mail at this time instead of all first-class mail by air, said: "Neither the Department nor the air carriers are presently equipped to handle the volume of non-local first-class and air mail combined by air. The carriers do not have sufficient aircraft, and the air transportation industry is presently not capable of performing service in all kinds of weather with the degree of regularity in performance of schedules required by the Department to render efficient service. The Department does not have adequate facilities at airports for handling such volumes of mail, nor is a system perfected for efficient handling of the mail if transported by air instead of by surface means at present." He nevertheless pointed out that all long-haul first-class mail can be flown at a 3c rate without expenditures chargeable to such mail exceeding revenues. As a whole, though, the PO would lose money.

Carrying all first-class mail by air would require 10 times as much airline space as was needed in 1944.

The pay received by the airlines for carrying the mail was mentioned several times in the Sullivan report. "Air mail transportation rates must be stabilized and further reduced," it said, stating that

The following table shows probable cost to the Post Office Dept. of transporting parcel post packages of various sizes by air from Washington to the west coast, together with surface parcel post tariffs. Actual rates to the public might be slightly higher than these air costs. It has been pointed out that the PO does not break even on surface parcel post—the loss was $15,000,000 in fiscal 1944.

Weight	PO Air Parcel Post Cost	Surface Parcel Post
2 lbs.	$1.21	.27
3 lbs.	1.74	.38
4 lbs.	2.27	.49
5 lbs.	2.81	.61
10 lbs.	5.42	1.17
15 lbs.	8.13	1.74
20 lbs.	10.78	2.31
70 lbs.	37.37	7.97

until the airlines receive a lower rate such as the 32c a ton-mile once proposed by CAB "the volume of mail that can be provided by the Post Office . . . in furtherance of airline expansion will be restricted by the limitation of its revenues."

Larger airlines are now receiving 45c a ton-mile, others get 60c, while some smaller lines are still paid by the mile.

Sullivan said airline passenger revenue per ton-mile is 48.90c, express revenue per ton-mile 47.73c and mail revenue per mile 53.31c. "This indicates that the existing mail transportation rates produce more revenue than other forms of air traffic and that probably the rates are higher than necessary if all kinds of air traffic pay their proportionate share of the operation cost."

If first class mail went by air for 3c, and the airlines were paid 32c a ton-mile, the PO would lose $130,000,000. That class of mail by itself, however, would show an $82,000,000 profit. At a 4c rate, the PO would show a $23,000,000 yearly profit and that class of mail by itself would show a $237,000,000 profit.

The Sullivan report sets up tables on air parcel post, dividing the U. S. into eight zones, and containing what it would cost the PO to carry packages of various sizes. The costs, it points out, can be used as a basis for computing rates to be charged the public.

PO Estimates Loss to Railroads

If all long-haul non-local first-class mail and franked and penalty letter mail went by air, the railroads would lose only $12,000,000 to $15,000,000 of the almost $130,000,000 they receive yearly (based on 1944 figures) for carrying the mail, according to the best guess of Post Office Dept. officials. Reviewing first estimates that the railroads might lose $22,000,000, Second Assistant Postmaster General Gael Sullivan's air mail report points out that numerous railway post office cars still would be needed because they handle other classes of mail plus short-haul letter mail. If the railroads lost less than expected, PO costs would be increased by the difference between $12,000,000 to $15,000,000 and $22,000,000, it was pointed out.

As the air parcel post costs stand, they are far from constituting a cheap service (see table), and there is a wide difference between them and surface parcel post. However, it is pointed out that the PO lost $15,000,000 on surface parcel post in 1944. The PO based its air parcel post cost estimates on the lowest air mail pay now being received by domestic airlines—.225 mill per pound-mile. It pointed out that if mail pay was further reduced to 32c per ton-mile, transportation costs on air parcel post would drop 28%.

Reductions of more than 50% in many of the foreign air mail postage rates were recommended by Sullivan (see table). The rates are based on the probability of establishing reciprocal agreements eliminating interior handling costs now exacted by this and many other countries. They are also based on existing and probable foreign air mail pay received by the airlines.

Indications last week were that Sullivan intends to press his campaign. Teams of PO men were being formed to go into all subjects mentioned in the report—rates, routes, facilities, foreign agreements, etc. The Second Assistant was expected to have more to say before too long.

Conferees Agree on Limit of $500 Million in Airport Bill

Outcome of Channeling Issue Is Victory for Larger Cities

By GERARD B. DOBBEN

AFTER MORE than three months of deadlock, the House-Senate conferees on the Federal airport bill reached a compromise on March 19 and agreed on a $500,000,000 federal authorization not to exceed $100,000,000 a year over a seven-year period. The bill provides that the funds shall be channeled direct to local sponsors, except where state laws specifically prohibit such a procedure.

While the compromise on the channeling issue represents a victory for the larger cities, as represented by the Council of Mayors, the bill itself contains definite safeguards designed to prevent the larger cities from obtaining excessive grants. The CAA Administrator is directed to match local funds with Federal money on a 50-50 basis in the case of the smaller Class I, II and III airports. He is given discretion as to the amount, up to 50%, which may be allocated as the Federal share of the larger Class IV and V airfields. In addition, he must submit, in the annual CAA budget, estimates of the proposed Federal allocation to larger cities and Congress reserves a veto power if it deems the allocations to a specific city are too large or not in the public interest.

As this was written the bill still faced Senate and House approval. There was some indication that Sen. Owen Brewster (R., Me.) might attempt to have the conference report defeated on the Senate floor and the bill returned to committee for further study, Capitol observers predicted this move would be defeated. Brewster sought to have funds allocated through the States.

While the long delay has held up the actual start of construction unnecessarily, aviation interests generally feel that the compromise bill is an improvement over both the House and Senate versions.

The bill provides that a sum of $3,000,000 shall be made available immediately for engineering, planning and survey services and it was expected that this appropriation would be included in a pending deficiency bill. The $500,000,000 program is to go into effect July 1, 1946.

The $500,000,000 authorization is to remain available during the life of the act seven years. This was done to protect those States who do not expend the full amount appropriated for use in their states in any one year. The bill provides that 75% of the total amount shall be credited to allowable projects on a State allocation basis which takes into consideration area and population in determining the amount which may be allowed for projects in each state. The other 25% constitutes a discretionary fund which permits the Administrator to allocate additional funds to airport projects in certain States in accord with the need of the overall national program and with due regard for existing facilities or the lack thereof.

Following the Federal highway program precedent, the bill contains a preference clause for public land states. States in which more than 5% of the land is Federally owned may receive up to a maximum of 62½% in Federal funds. Larger airports in these states also come under the benefits of this special clause.

The bill provides that the Federal government may participate up to 25% in land acquisition and condemnation costs with the Administrator given authority to determine what is a reasonable price for the costs involved. Administrative buildings may be included in allowable project costs but hangars may not. None of the funds may be allocated for construction projects undertaken prior to the enactment of the law, and engineering and planning costs previously incurred are likewise excluded as an allowable cost.

Local sponsors are not granted authority to use Federal condemnation laws as was provided in the bill. Condemnation proceedings must be initiated under State laws, or under grants of power by States to local units.

The so-called Randolph-Bulwinkle amendment permitting a sponsor in one state to receive funds for building an airport in a contiguous state was retained. Sponsors from two or three states, where their boundaries meet, may unite on a project and receive Federal funds in the project is allowed.

Use of convict labor is prohibited. Preference shall be given to the employment of veterans, except in cases of executive, administrative, supervisory, and technical personnel. Prevailing wage rates, determined by the Department of Labor, shall be paid.

The bill provides $20,000,000 for Federal aid for airport projects in the territories, divided approximately between $10,000,000 for Alaska, $5,000,000 for Hawaii and $5,000,000 for Puerto Rico. The Administrator is granted certain discretionary powers with reference to allowing more than 50% Federal contribution on territorial projects.

Government departments or agencies may sponsor projects in National Parks, National Forests and National Monument areas. Government land shall be provided free when available under certain conditions. Funds for the sponsor's share in these projects shall come from special appropriations or from local donations.

The bill provides that not more than $100,000,00 may be appropriated for any one year with a 5% allowance for administrative, engineering and planning expenses.

Minnesota Contracts for Airports

The Minnesota Department of Aeronautics has awarded 11 contracts for the development of small municipal airports, involving about $300,000, according to L. L. Schroeder, commissioner. Total work to be accomplished during the coming summer will cost about $2,000,000, one-half of which will be expended from state funds and the balance from municipalities.

Lockheed Ups Saturn's Price, Drops Schedule to 100 Craft

Revisions Follow Analysis Of Feeder Plane Market

LOCKHEED AIRCRAFT Corp. has made a sharp revision downward in its analysis of the feeder plane market in establishing its production schedule for the 14-passenger, twin-engined, high-wing Saturn. The revision also includes a price increase.

The new schedule is based on a volume of only 100 planes as compared to the more than 300 planes Lockheed had estimated as its immediate market when the airplane was first projected in 1944. At that time, the maximum price was set at $85,000 in the provisional agreements entered into with Southwest Airways, All American Aviation and other potential purchasers of the craft. Now the price will exceed $100,000, possibly going as high as $115,000 or $120,000.

With the prototype of the Saturn under construction and ready to fly late in April or in May, Lockheed has set up its new production schedule for delivery of the first plane in January, 1947. Southwest Airways, providing it is awarded its feeder routes and also that it reactivates its original agreement to buy the Saturns, will get the first plane.

There are a number of contributing factors to Lockheed's re-analysis of the feeder plane market. Ranking high, of course, is the price boost.

When Lockheed first announced the Saturn it practically had the field for short haul regional service to itself and if the company could have achieved its original program of getting the plane into production early in 1946 it would have had the jump on all later rivals. Lockheed, however, had to suspend all work on the Saturn because of the military situation created by the "Battle of the Bulge" and then was slow in getting started on it again because of the heavy Constellation conversion program following the end of the war. As a result. Lockheed is a year behind its original schedule.

Meanwhile, the cost of material and labor has gone up. The plane can't be produced for the $85,000 which Lockheed had estimated as the maximum. Moreover, two competitors have announced feeder planes and will be in production at approximately the same time as lockheed.

One of these is Beech Aircraft's four-engine, 20-passenger feeder plane. Using flat opposed cylinder Continentals of 300 hp. each, Beech will be able to offer a four-engined ship without increasing fuel costs. Beech is reported even further along toward production than Lockheed, possibly turning out its first production model in October. Price for the Beech is appromixately $125,000.

The second entry is Boeing's 20-passenger model powered by twin Wright Cyclone 7's developing 700 hp. each. In addition to 20 passengers, the Boeing will carry a full 1,000 pounds of cargo. Boeing, it is reported, will be ready to deliver production models in the spring of 1947. Price for the Boeing job is approximately $145,000.

Whether feeder operators will feel that 20-passenger capacity may be advantageous still is in the speculative stage. At Civil Aeronautics Board hearings for feeder routes, most of the applicants based their figures on the Saturn because that was the plane on which data was available. In its market studies, Lockheed settled on 12 to 14 passengers as the plane best suited for feeder operations. It was for this reason it designed a 14-passenger craft and installed a movable bulkhead at the forward end of the cabin so that seats could be removed two at a time and the cargo space increased. Jim Ray, vice president of Southwest Airways, who has made exhaustive studies of feeder line potentialties in connection with the applications of his company, says, however, that he feels some routes could support the 20-passenger ships.

The changing air transport pattern is another reason Lockheed has lowered its sights on Saturn production. The plane was announced at the time interest in feeder lines was at a high pitch and the 300 provisional orders came in fast. Now the long lapse in the certification of feeder operators has brought the element of uncertainty into much of the picture. Lockheed is making minor revisions in the Saturn. One of the more important involves take-offs and landings. These are being improved because of the export market, especially Latin America for use in areas where airport facilities are limited.

Landing Fee Anxiety

Concern is growing within government and industry circles over a current trend toward widespread charging of landing fees for personal aricraft. Reflecting official anxiety over the effect of such charges on the development of civil aviation, both the CAA and the Personal Aircraft Council of Aircraft Industries Association have initiated nation-wide surveys to determine the scope and nature of existing fees. The NAA is also gathering facts and figures on the subject.

One industry slant is that all public tax-supported landing facilities should be available free to the personal flyer, just as highways are to the motorist. CAA is planning to incorporate the landing fee data in its bi-weekly Notice to Airmen, so the pilots will know in advance the landing charges at fields on their itinerary.

Tulley Resigns, Snow Takes Over

Arthur H. Tulley, Jr., director of the Massachusetts Aeronautics Commission, has resigned and will be succeeded on April 1 by Crocker Snow. Tulley has been director for more than two years. In filing his resignation, Tulley submitted a long list of recommendations, including a request for closer cooperation between the Commission and other state departments. He also recommended that the commission be empowered to immediately hire two airport engineers.

Aviation Calendar

Apr. 3-5—SAE National Aeronautic Spring Meeting, Hotel New Yorker, New York.

Apr. 5-13—National Aviation Show, sponsored by Aviators Post No. 743, American Legion, Grand Central Palace, New York.

Apr. 8-10—Aero Medical Association of U. S. Annual Meeting, Edgewater Beach Hotel, Chicago.

Apr. 8-12—American Society of Tool Engineers Convention and Exposition, Cleveland.

Apr. 12—Third New England Aviation Conference, Hotel Statler, Boston.

Apr. 12—Automotive & Aviation Parts Manufacturers, Inc., annual meeting, Book-Cadillac Hotel, Detroit.

Apr. 12-15—Annual flight of Sportsman Pilots Association to Palm Beach, Fla., headquarters at Brazilian Court Hotel.

Apr. 18—IAS New York Section meeting, 8 p.m., McGraw-Hill Auditorium.

Apr. 22-24—Stephens College, Columbia, Mo., national conference on Women in Aviation.

Apr. 22-27—National Plastics Exposition, Grand Central Palace, New York.

May 6-7—Eleventh national meeting, National Aircraft Standards Committee, Lexington Hotel, New York.

May 13-14—New York State Aviation Council's semi-annual meeting, Westchester Country Club, Rye, N. Y.

May 21—PICAO Assembly begins three-week meeting, Montreal.

May 24—Kansas Farmer's Flying Club convention and exhibit, Hutchinson, Kan.

June 1-2—National Air Carnival, Birmingham.

June 2-7—SAE Summer (Semi-Annual) Meeting, French Lick, Ind.

June 8-9—Dedication Eldon, Mo., Model Airpark.

June 13-15—Annual New England lightplane tour, auspices New England Aviation Trades Association.

July 18-21—"World's Fair for Aviation," Omaha.

July 19-20—NAA National Convention, Omaha, Neb.

Aug. 1-2—National Flying Farmer's Association first annual convention, Oklahoma A. & M. College, Stillwater, Okla.

Aug. 22-24—SAE National West Coast Transportation & Maintenance Meeting, New Washington Hotel, Seattle.

Aug. 31-Sept. 2—National Air Races, Cleveland.

Oct. 3-5—SAE National Aeronautics (Fall) Meeting and Aircraft Engineering Display, Biltmore Hotel, Los Angeles.

Oct. 14-17—National Aviation Clinic, Oklahoma City.

Oct. 16-17—SAE National Transportation & Maintenance Meeting, Hotel Knickerbocker, Chicago.

Oct. 23-25—Second Annual Arizona Aviation Conference, Phoenix.

Nov. 7-8—SAE National Fuels & Lubricants Meeting, Mayo Hotel, Tulsa, Okla.

INTERNATIONAL EVENTS

Apr. 2—PICAO Council reconvenes in Montreal.

Apr. 24—PICAO route service conference on European navigation facilities, Paris.

May 21—PICAO Assembly Meets, Montreal.

Oct. 29—Annual meeting International Air Transport Association, Cairo.

Northwest and AOA Sign For Eighteen Stratocruisers

Contracts Total $25 Million; Delivery to NWA Early in '47

NORTHWEST AIRLINES and American Overseas Airlines last fortnight announced contracts with Boeing Aircraft Co., for the purchase of 18 Stratocruisers at an estimated cost of $25,000,000. Northwest will purchase 10, AOA 8 of the aircraft.

Northwest, whose contract calls for an expenditure of $15,000,000, will use the Stratocruiser in both transcontinental domestic service and on its proposed "northwest passage" route to the Orient. The transport will carry from 75 to 105 passengers.

Northwest anticipates delivery of the first Stratocruiser shortly after the first of next year. Appointments in the Northwest version of the aircraft include a lounge seating 14, men's and women's dressing rooms, sleeping quarters, and pressurized cabin.

Like Northwest, American Overseas expects delivery of its Stratocruisers early in 1947. Its contract calls for an expenditure of about $1,300,000 per airplane, or a total in excess of $10,000,000.

The AOA version of the Stratocruiser provides seats for 60 passengers by day, or berth space for 30 persons. Seating capacity could be arranged to accommodate 100 passengers, the company said.

Northwest estimated that the first six Stratocruisers placed in use would carry about 30,000 passengers each month, with about 125,000 to be carried on Northwest's other four-engine transports and its fleet of smaller planes.

Visitor—The above photo was taken in IATA's head office, Montreal, during a visit by Sir William Hildred, director general of the association as of April 1. Left to right are Dr. H. J. Gorecki, assistant secretary and treasurer of IATA; John E. Slater, chairman of the executive committee; Sir William P. Hildred; and L. C. Tombs, acting secretary and treasurer.

Western Contracts For 20 240s, Takes Option on 30 More

Western Air Lines on March 25 signed a contract with Consolidated Vultee Aircraft Corp., for 20 Convair Model 240 transports at a cost of $4,500,000. Western also took an option for delivery of 30 additional 240s.

Western said the 40-passenger Convair transports would cost about $250,000 each, and will supplement the company's fleet of 23 four-engine Douglas transports (DC-4 and DC-6) now being placed in service. Total cost of the Douglas fleet will be $15,000,000.

The Model 240s, also on order by American Airlines (see story on page 17), will be pressurized, and the power plant will include exhaust jet assist and reversible pitch propellers.

Richard A. Dick, Western's general traffic manager, said one of the factors dictating the purchase of the Convair 240 was the improved visibility which the aircraft affords through installation of extra large windows.

Rickenbacker's 'Pet Idea' Revealed—A Super Plane

Eddie Rickenbacker, president of Eastern Air Lines, told a radio audience at Kansas City recently that he has his own "pet idea" for a transport airplane "and it it ever is built it will be far more economical and faster than our commercial craft of today."

Speaking of Eastern's order of 20 of the Lockheed Constellations, Rickenbacker said: "But even those, with their cost, passenger capacity, a speed of 300 miles an hour and still to be delivered, already are obsolete when you look at the near future of aviation. Aviation is at the same place today that the motor car was in 1915. Looking at the development on the way, we see New York City two and a half hours from Kansas City and the West Coast only three hours away."

He explained he had in mind turbine engines, the combination of jet and conventional power plants and other speed producing improvements here or just over the horizon. He said he foresaw air passenger rates reduced to 3½ cents a mile "within three years" and air freight rates down to 10 cents a ton mile within six or seven years.

PAA's Order for Rainbows Increased from 6 to 18

Republic Aviation Corp., announced that it would produce up to 18 Rainbows for Pan American Airways, a three-fold increase over Pan Am's original order. Production already has begun on the first six of the four-engine transports.

First deliveries are expected next year. The Pan American version of the Rainbow will be equipped to carry 46 passengers and crew. The transports will be powered with four turbo supercharged Pratt & Whitney Wasp Major engines, producing 3500 hp. each.

AA Board Authorizes Raising $80 Million During Current Year

The board of directors of American Airlines last fortnight authorized the raising of approximately $80,000,000 during the current year through the sale of debentures and convertible preferred stock in relative amounts, at rates and on terms and conditions to be determined with reference to market conditions at the time of issuance.

This was part of a three-point program set up by American directors for financing new equipment and for general expansion. Other points in the financing program were:

Stockholders will be asked at the annual meeting in Wilmington, Del., April 17, to vote a total authorization of 600,000 shares of preferred stock with essential rights and privileges, including rights of conversion to be determined by the directors.

Stockholders will be asked also to vote on the proposal to split the common stock outstanding in the ratio of five shares for one. There are currently 1,290,568 common shares outstanding.

It is intended that the recently negotiationed bank loan of $25,000,000 will be paid off from the proceeds of this financing program. The present financing plan supersedes a previous program authorized by stockholders in Dec., 1944. At that time the stock was split two-for-one and authorization granted for 200,000 shares of $100 par preferred, but this privilege was never exercised.

WAC Reports 3,392 Craft Sold, Leased in 2 Months

War Assets Corp., reported that 3,392 surplus aircraft of all types were sold or leased during January and February bringing the cumulative total of sales and leases through Feb. 28 to 20,474.

As of March 1, WAC said that of 964 Douglas DC-3 type transports declared surplus, 454 have been sold or leased. Of 349 DC-4 type aircraft declared surplus, 142 were sold or leased. Of 678 Curtiss Commando C-46 aircraft, 11 were reported sold or leased.

WAC said sale of surplus Vultee basic training aircraft at $975 would continue indefinitely. A special 90-day sale of the basic trainers was started Dec. 17 to determine effect of price on the market for planes. Results have been so satisfactory that the sale will continue until demand dwindles. A total of 5,622 Vultee basic trainers were in surplus stocks as of March 1.

Herman, Harvey, Gardner Named to CAA Positions

M. Justin Herman has been named assistant administrator for aviation training in the Civil Aeronautics Administration, succeeding Bruce Uthus who has resigned to join TWA.

Donald R. Harvey has been appointed personnel officer for CAA, and Edward J. Gardner has become assistant personnel officer.

CAB Holds Up AA's Convair Deal With Show Cause Order

AVCO Control of Companies Cited in Board's Statement

INTO THE highly competitive airline equipment picture, the Civil Aeronautics Board tossed a surprise—an order requiring American Airlines, Consolidated-Vultee Aircraft Corp., and Aviation Corp. (AVCO) to show cause by March 25 why CAB should not prohibit the consummation of American's contract to buy 100 of Convair's 240, a twin-engined, 40-passenger, medium range transport.

The show-cause order quoted an earlier order of the Board which found that AVCO, through its stockholdings, controlled both American and Convair in violation of the Civil Aeronautics Act, and which ordered AVCO to relinquish its control of American by reducing its holdings of AAL stock to a maximum of four percent of the total outstanding stock by July 31, 1946. If the AAL-Convair contract is consummated prior to AVCO's divestiture, the Board said, there may be a "further violation of Section 408 of the Civil Aeronautics Act . . . as well as a violation of the plain meaning and intent of the . . . divestiture order."

In the earlier divestiture order, the Board found that common control by AVCO of both American, an air carrier, and Convair, a manufacturer of aircaft which might be used by American might deprive American and its subsidiary American Overseas Airlines "of their proper and necessary freedom of judgment in the selection, purchase and use of aircraft and equipment in the performance of those air transportation services which the said air carriers have been authorized and certificated to render, and might raise conflicts of private interest which might be inconsistent with the public interest."

The Board's order on the 240 contract apparently indicated that CAB felt that AVCO, through its common control, might possibly have influenced American's decision to buy the 240's.

Until final determination of the proceeding initiated by the show-cause order, or until AVCO reduces its holdings in American to the required four percent or less, CAB has prohibited AVCO "from entering into or consummating any commercial transaction or transactions of any type whatsoever with American Airlines, Inc., and from permitting any of its controlled subsidiaries from entering into or consummating any commercial transaction or transactions of any type whatsoever with American Airlines." AAL is likewise prohibited from "entering into or consummating any commercial transaction or transactions of any type whatsoever with the Aviation Corp., Consolidated-Vultee Aircraft Corp., or any other person or corporation controlled by the Aviation Corp."

Terrell C. Drinkwater, AAL vice-president, in a statement to AMERICAN AVIATION, declared that the contract objected to by CAB was a "straightforward business transaction, designed to provide American Airlines and the air transport industry with aircraft of advanced and superior design and performance. The CAB was informed on December 17, 1945, by American of our intention to enter into the proposed contract," Drinkwater said. "The contract, in our opinion, is in the public interest and we propose to submit proof to that effect to CAB in response to the show-cause order."

Lines Must Quit Miami Service

TACA Airways companies and the Cuban airline Expreso Aereo Inter-Americano have been instructed by the CAA to discontinue carrying passengers on charter flights into Miami. Both companies will continue cargo operations, however.

The Beechcraft 35—This is Beech Aircraft Corp.'s all metal, four-place medium priced post-war craft which has clocked 180 mph. in top-speed tests. Performance and weight details are being withheld until all testing has been completed and guaranteed figures can be released.

135 Transport Craft Go to 76 Applicants In Current Allocation

Allocation of 135 two and four-engined surplus transport planes to 62 domestic and 14 foreign applicants was announced by War Assets Corp. during the past fortnight.

Only three U. S. scheduled carriers are listed in the 26th and 27th allocations. A complete list of these allocations, many of which were sold or leased to veterans, follows:

Domestic Applicants

Douglas (C-54B): Northwest Airlines, 2; Western Air Lines, 1; United Air Lines, 1.

Douglas (C-54A): California Eastern Airlines, San Francisco, 3; Lodwick Industries, Lakeland, Fla., 1; National Air Cargo Corporation, Los Angeles, Calif. 3; TransAmerican Airways, Miami, 1; **Beech C-45:** Civil Aeronautics Administration, 2; **Grumman (OA-9):** Department of Agriculture, 1; **Douglas (C-47B's):** (All veteran-operated organizations.) Thurston-Hoffman Airlines, Rocford, Ia., 1; Wilco Airlines, Inc., New York City, 1; NATS Air Transportation Service, San Francisco, 1; Nationwide Air Transport Service, Ocala, Fla., 1; All Service Airlines, San Leandro, Calif., 1; Glen E. Bayles (Lt., USNR), Miami, 1; Flamingo Air Service, Inc., New York City, 1; J. R. Keller (Lt. Comdr., USNR) and T. F. Edwards (Lt., USNR), Corpus Christi, 1; The World Air Transport Service (Lt. Comdr. Thomas Seabrook), Anacostia, D. C., 1; Veterans Air Express Co., Newark, 1; National Skyway Freight Corp., New York, 1; Major L. C. Hallonquist, Los Angeles, 1.

Beech (AT-11): The following are all veterans: John R. Fowlie, Washington, D. C., 4; Winston W. Kratz, St. Louis, 5; Thomas Crawford, Hawthorn, Calif., 1; J. R. Keller, Corpus Christi, Texas, 1; Charles I. Stanton, Jr., Washington, D. C., 1; Toy A. Crocker, Ft. Worth, 1; Robert K. Morgan, Asheville, N. C., 1; L. G. Gibson, and T. D. Peet, Jr., Denver, 1; Col. Frank Kurtz, Washington, D. C., 4; William N. Serhus, Washington, D. C., 2; H. B. Fleming, Brownsville, Tex., 1; Rea C. Tenny, Atlanta, 1; Harry Conley, San Jose, Calif., 1; Transairways Corp., 5; Capt. J. K. Coltharp, Austin, Tex., 3; Paul Weber, Long Beach, Calif., 3; Lt. Col. Frank Clerke, Los Angeles, 2; John Nixson, Jr., Sioux City, Ia., 1; and Sax Auto Co., Dickenson, N. D., 1.

In addition, the following non-veteran organizations were allocated AT-11s: Northrop Aircraft, Hawthorne, Calif., 1; Areo Industries Corp., New York City, N. Y., 5; Kaufmann Meat Co., San Jose, Calif., 1; Aero Corporation, Atlanta, Ga., 8; Texas and Northern Airways, Des Moines, Ia., 1; Fairchild Aerial Survey's Inc., Long Island, N. Y., 2; Silverman Brothers, Providence, R. I., 1; Aircraft Sales Co., Ft. Worth, 3; Ralph E. Myers Co., Salinas, Calif., 10; Shellmar Products Corp., Mt. Vernon, O., 1; Capital Airlines, Inc., Jackson, Miss., 4; Rhodes Department Store, Seattle, Wash., 1; Texas Highway Dept., Austin, 1; Ranger Flying Service, Ranger, Tex., 1; Eastman Oilwell Survey Co., Denver, 1; J. C. Miller Co., Grand Rapids, Mich., 1; Pacific Air Transport, Redding, Calif., 2; Belk-Leggett Co., Danville, Va., 1; and E. L. Traylor, Washington, D. C., 2.

Foreign Applicants

Douglas (DC-3 Type): Cruzeiro do Sul, Ltda., Brazil, 3; Portuguese East Africa (Mozambique), 1; **Douglas (C-54):** LAN, Chile, 2; Tasman Empire Airways, Inc., New Zealand, 2; Far Eastern Air Transport, Manila, 2; Philippine Airlines, 2; E. J. Abecassis, Inc., Lisbon, Portugal, 2; Compania de Aviacion Faucett, Lima, Peru; **Beech (AT-11):** Valentim F. Boucas, Brazil, 1; Caribbean Aeronautical Corp., 2; **Beech (C-45):** Uruguayan Air Forces, 1; **Beech (AT-7);** LAN, Chile, 1; **Grumman (JRF-5):** Governor General of British Guiana, 1; **Catalina (OA-10A):** French Government, 1.

Slump in Volume of Air Mail Causes Industry Some Alarm

PO Levies Fines on Carriers For Alleged Irregularities

THE SUBSTANTIAL drop in the volume of soldier mail has caused air mail loads on the domestic airlines to decrease to a point where the situation is causing some alarm in airline circles.

The switch from a wartime to a peacetime economy has not yet become sufficiently distinct to enable business houses and the public to take up any of the slack, and most observers are looking to the proposed new air mail postage rate of 5c an ounce to put air mail loads back up to more satisfactory levels.

Although the loads have dropped, the Post Office Dept. is still campaigning to make sure that what mail is being carried is being handled quickly and expeditiously by the airlines. Probably the largest fine ever placed on an airline by the Post Office was the recent one of $25,000 levied against American Airlines. In November and December there were 178 instances where American allegedly either did not carry the mail or off-loaded it for other traffic. United Air Lines was fined $1,000, and other smaller fines have been handed out. In general the situation is now straightened out.

Air mail loads boomed to new highs during the war and with the press of priority traffic, some mail was delayed and not carried. Some mishandling of the mail since the end of the war can undoubtedly be attributed to procedures followed during the war, and it is believed that most alleged violations occurred before top management had had an opportunity to become familiar with the situation. Word has now been sent out from headquarters of many airlines that the mail must be handled without fail.

Turning point in air mail loads came last October, when totals were 1.41% under October, 1944. This, however, was only the beginning. November was 16.18% under the same 1944 month, December was off 23.34% and January dropped 32.47%.

Hardest hit have been the smaller lines who during the war handled mail that had been diverted from the larger transcontinental carriers. One airline mail manager asserted that his company's mail revenue had fallen from $73,000 last August to $34,000 in a recent month.

There was a time during the war when soldier mail constituted 50% of the nation's air mail (early last year, the Post Office ran a test of 53 Ohio post offices not on air mail routes, found that of 43,285 air mail letters dispatched daily, 35,342 were overseas letters. Of 34,157 letters received daily, 28,043 were from overseas). Because delivery was often delayed due to the airlines' inability to handle heavy mail loads—and because of the 8c postage rate—many business houses stopped using air mail.

Since the end of the war, getting business houses back into the air mail habit has been delayed by strikes, unsettled conditions, and by the continuing 8c rate. Many hopes are pinned on the proposed 5c rate, which observers believe will pass Congress. Inauguration of the 5c rate will be accompanied by an intensive Post Office air mail advertising campaign, conducted through its postmasters. Airlines will undoubtedly cooperate with advertising.

Meanwhile, the Post Office is considering a system of again "designating" mail trips on airlines. The PO now uses for the carriage of mail all schedules operated by the airlines. But in some instances frequency of service has become so great that PO trucks are kept constantly busy hauling handfuls of mail to airports for shipment on the next trip. So where delivery will not be delayed, the PO may pass up some trips and consolidate its loads for later flights.

Thomas Wolfe Resigns as Western Vice President

Thomas Wolfe, veteran airline traffic man, resigned suddenly as vice president-traffic of Western Air Lines last fortnight, made no announcement of his future plans except to state that he will continue with research and writing in the aviation field.

A graduate of Northwestern University, Wolfe has been active in the industry for over 21 years. Prior to his association with Western, he spent nine years as district traffic manager for United Air Lines in Chicago.

Until a successor has been named, Western's traffic department will be coordinated by Richard A. Dick, general traffic manager.

Personnel Choices for Study Being Watched

The airline industry expects to keep a close watch on the selection of personnel who are to make an investigation of all forms of transportation under the terms of a resolution recently passed by Congress. Only last week, the House voted the Interstate and Foreign Commerce committee $35,000 to do the job.

Airline officials are aware that the Transportation Association of America, labelled by a Senate committee a "Railroad Front Organization," has been active in the preliminary work done thus far. The topical questionnaire which has been sent to some 12,000 members of transport organizations was a product of TAA and one of its officers has been active, on a voluntary basis, in assembling and correlating the material that has been received in response to the questionnaires sent out by the House Interstate and Foreign Commerce committee.

It is understood that Rep. Clarence F. Lea (D., Calif.), chairman of the committee, vetoed a proposal made in the Accounts Committee of the House that personnel be borrowed from the Interstate Commerce Commission to do the job. While such an arrangement might have cut down the cost of the investigation, Lee is said to have opposed the idea because he desired an independent study which would assure an impartial investigation. The airline industry expects to watch closely the selection of the personnel for this job as it feels it has a real stake in the outcome.

The study is designed to produce information upon which Congress can form a new transportation policy and many observers feel that out of the recommendations may come a single agency to regulate all forms of transportation, including air.

CAA Defense Fails to Calm Opposition To Government Aircraft Repair Proposal

Civil Aeronautics Administration last fortnight staunchly defended its proposals for acquiring a stockpile of surplus aircraft parts and making repairs to its own aircraft and drew blasts from Aeronautical Training Society and the Personal Aircraft Council of Aircraft Industries Association.

CAA said its acquisition of military planes from surplus to replace obsolete equipment would save the taxpayer almost $9,000,000 over the next five years—an assertion labeled by Wayne M. Weishaar, secretary of ATS, as "wishful thinking unsupported by factual evidence."

The Personal Aircraft Council, meanwhile, went on record as disapproving the CAA proposal to establish its own repair bases for the maintenance or CAA aircraft. CAA said all major overhaul would be done by contract with the industry, but that installation and reconditioning of component parts will be accomplished by CAA personnel in the field and at a central parts-storage depot.

Weishaar said a breakdown of CAA's "claimed savings of $1,754,000 a year . . . rests on the fact that another department of government has turned over to it surplus airplanes and parts.

"No one has questioned or is questioning the use by government of surplus planes nor the warehousing of surplus parts. The whole point at issue is whether it will save the tax payer and civilian aviation will benefit if government goes into the plane repair business.

"John P. Morris of CAA says he will save $362,000 a year for maintenance of his fleet of 231 aircraft. CAA could not or would not give out what it has cost in the past, using ordinary commercial repair bases.

"No doubt Congress and the taxpayer will want to examine this and other dubious claims of savings before it lets the government get another foot in the door of private business."

NAA Reports $44,742 Assets

Total assets of $44,742.58 are disclosed by National Aeronautic Association in its statement of assets and liabilities as of Dec. 31, 1945. Liabilities are reported at $17,911.92. The organization lists a surplus of $34,998.57 after a year's loss of $8,167.91. NAA's membership report as of the same date shows chapter membership of 13,108, at large membership of 2,935, for a total of 16,043. Total membership as of Dec. 31, 1944, had been 14,935.

Nose Aerol of the XF-12

ANOTHER AIRCRAFT ACHIEVEMENT

that includes **AEROL** *landing gear*

Illustrated is the Republic XF-12. This giant photo-reconnaissance plane is the military forerunner of the Republic "Rainbow", a commercial transport expected to cruise at over 400 miles per hour at 40,000 feet, with a range of over 4,000 miles. • The XF-12, practically a flying photographic lab, is equipped with Cleveland Pneumatic AEROLS to protect plane, crew, and equipment during landings and takeoffs . . . Thus another plane joins the long list of outstanding aircraft which are Aerol-equipped.

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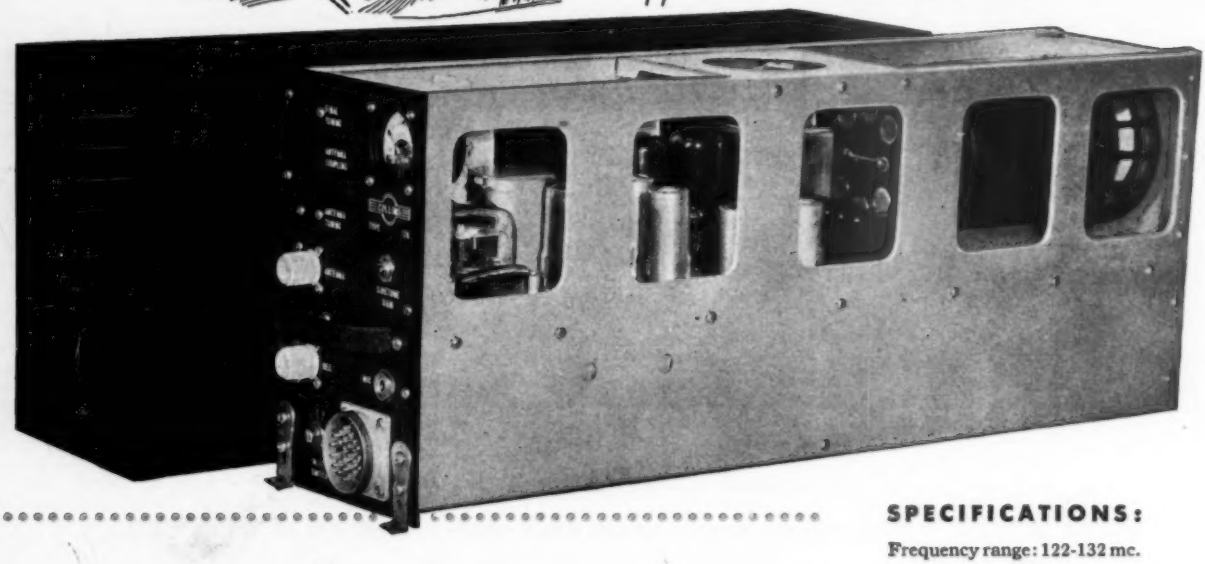
The Collins
17K-1 Transmitter



Lightweight VHF for Aircraft

The 17K-1 is a five frequency, crystal controlled radio transmitter for commercial and itinerant aircraft use in the 122-132 mc band. The complete transmitter, including a dynamotor power supply, is housed in a single ½ ATR unit cabinet. Transmitter, control box, and interconnecting cable weigh less than 20 pounds.

Remote control facilities allow complete freedom in locating the 17K-1 in the plane. An antenna transfer relay is available, if desired, in order to operate a receiver from the transmitting antenna.

The power output, adequate for the VHF range, is conservatively rated at 5 watts. Total power drain is held to a minimum during both stand-by and operation.

The audio circuit employs peak clipping to raise appreciably the effective modulation level and allow full use of the carrier power.

The 17K-1, thoroughly engineered and flight tested, enables its owners to obtain maximum benefit from the new VHF aircraft frequencies. Write today for early delivery. The Collins Radio Company, Cedar Rapids, Iowa; 11 West 42nd Street, New York 18, N. Y.

SPECIFICATIONS:

Frequency range: 122-132 mc.
Size: ½ ATR unit.
Total weight: less than 20 pounds.
Number of frequencies: five.
Frequency control: quartz crystals.
Power output: 5 watts minimum.
Type of emission: voice modulation.
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Power source: 12 volts d-c or 26.5 volts d-c.

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COLLINS

CAB Plans Pilot-Hour Study Affecting Safety, Economy

Board Will Air Controversy Over Fair Work-Yardstick

HOW MANY HOURS a pilot can fly without relief in domestic and international airline service will be the subject of an important Civil Aeronautics Board investigation in the near future.

The investigation is important because it will determine whether rules can be drawn up which will be consistent with the highest standards of safety and at the same time keep crew costs at a reasonable level. It will have a bearing on not only the economics of non-stop transcontinental service but will also affect the international field, where operating costs assume great importance.

At the present time a pilot cannot fly on domestic routes more than eight scheduled hours (flying time) unless a relief pilot is aboard. This makes it impossible, for example, for TWA to operate eastbound non-stop Constellation service unless an extra pilot is carried, increasing costs. At present, TWA makes one stop on both eastbound and westbound flights.

On international routes a pilot can fly 12 hours if a third crew member (navigator, engineer, etc.) is abroad to take some duties off his hands.

Many pilots have maintained that scheduled hours is the wrong yardstick to use in measuring work. Some of them lean toward the idea of using "on-duty" hours, pointing out that a pilot puts in a lot of time in addition to actual flying time. CAB intends to go into this to determine whether the correct yardstick is being used. Specifically, the investigation will cover "all matters relating to and concerning the period of time during which pilots engaged in air carrier operations may be on duty in the various types of equipment and operations now being conducted and which are anticipated in the immediate future."

Hearings will be held before a CAB examiner April 30.

North Dakota Tests Case Of Intrastate Applications

Following receipt of an application for a certificate of convenience and necessity for an intrastate passenger airline, the North Dakota Public Service Commission has referred the matter to the state legal department to determine if the commission should have jurisdiction under the common carrier laws of the state. It is probable that the legal opinion will be affirmative.

Meanwhile the governor has named five members to the aeronautics division of the Public Service Commission, the division having been created by the legislature last year. The members are: Dr. Dalton LaMasurier, Grand Forks; James J. Flannery, Jamestown, N. D.; C. W. McDonnell, Public Service Commission, Bismark; H. W. Potter, manager of Bismarck Airport, secretary; Wesley E. Keller, Minot.

ATA Operations Committee Adds 3 Specialists to Staff

Air Transport Association's operations committee has added three specialists to its staff to assist in speeding up the installation of air navigation aids and to study changes in air traffic regulations required by the use of larger equipment by the airlines.

The specialists are William B. Becker, formerly with the general counsel's office, CAA; H. L. Roberts, former operations official with PCA and American Airlines and for seven years a CAA employe and Martin A. Warskow, airport lighting engineer with Army and Navy experience.

Davison Heads Air Power League

F. Trubee Davison, air veteran of both World Wars and former Assistant Secretary of War for Air, has been elected president of the Air Power League, succeeding Charles E. Wilson, president of General Electric Co., who has headed the league since its organization in December 1944.

Scottish Line Surveys Atlantic in Liberator

Officials of Scottish Aviation, Ltd., headed by the Duke of Hamilton and David F. McIntyre arrived in the U. S. last fortnight of the company's first transatlantic survey flight in a converted Liberator bomber. The route was via Iceland. After a few days in the east, the party flew to San Diego and Los Angeles to look over equipment possibilities.

Determined to obtain franchises for air services from Scotland despite the opposition of the British Government, the company has applied to the CAB for charter and contract carrier permits and hopes eventually to obtain a concession from the British. To date the Government has refused the release of dollar exchange to purchase U. S. airplanes.

The company has opened its first local service with a converted DC-3 between Prestwick (which serves Glasgow) and Belfast, charging 30 shillings one way. About 480 passengers a week are being carried on twice-daily schedule, the flight requiring but 30 minutes versus the shortest surface trip of 14½ hours. Railway Air Service is charging 50 shillings for the trip. Cheapest surface cost is 23 shillings with first class passage costing 39 shillings. At present the British Government will allow only 60 gallons of fuel a month to Scottish Aviation which restricts operations considerably. The company plans to lower the fare when more fuel can be obtained.

Transport Operators Expect Large Savings From Surplus Distribution by Dallas Firm

Substantial annual savings may be netted by the U. S. airline industry through Aviation Activities, Inc., which has just started worldwide distribution of war surplus parts for engines used in all of the larger commercial and military transport planes of U. S. manufacture. Under contract with the War Assets Administration, the recently formed Dallas firm headed by former airline executives has plans for supplying all operators of U. S. transports, here and abroad, with a complete line of some 11,000 expendable parts drawn from the huge government stock of unused surplus.

The parts handled are those required for maintenance and overhaul of powerplants slated for use in new commercial transports under construction for 1947 delivery, as well as for all U. S.-made transports now in operation.

These include engine parts for the Pratt & Whitney R 2800 to be used in the Martin 202 and 303, Consolidated Vultee 110 and 240, and the Douglas DC-6; the Wright R 3350 used in the Constellation; the Pratt & Whitney R 2000 used in the C-54 and DC-4; the Wright R 1820 series used in the DC-3 and C-60; the Pratt & Whitney R 1830 in the C-47, C-53, and DC-3 types; and the Pratt & Whitney R 985 in Beechcraft transports.

On the average the items are expected to sell at about 56% of the commercial price. With the U. S. domestic airlines spending an estimated $11,000,000 annually for engine parts, savings to the carriers by purchase of government surplus engine parts through Aviation Activities will aggregate some $5,000,000 a year. The company already has firm orders totaling $3,000,000.

For its warehousing and shipping operations the firm has leased more than 150,000 sq. ft. of space at the North American Aviation plant, Dallas, where initial shipments of new engine parts owned by the government arrived during the past fortnight. Parts are earmarked for the purchaser as the order is received, and shipped as requested. Sufficient quantities of all items are expected to be available from surplus to meet the demand for several years.

Top company executives, who resigned from airline positions to direct the new enterprise, are Robert J. Smith, former vice president of Braniff Airways, who is president; S. Jack Ingram, who is resigning as assistant to the president of Braniff Airways on April 15, to become vice president and secretary; and Henry I. McGee, former purchasing agent for Braniff and TACA, who is vice president and treasurer.

Smith's airline experience dates back to 1928 when he joined Texas Air Transport as general traffic manager, and includes service with American Airways in the early thirties. He has been vice president with Braniff since 1938, except for a three-year wartime interlude.

Ingram has been with Braniff for five years, prior to resigning as Washington representative and assistant to the president, while McGee has had a decade of purchasing experience with Braniff and TACA.

Former airline and military air force personnel experienced in the handling of aircraft engine parts, and cognizant of CAA safety and quality standards and regulations are on the staff responsible for the inspection and distribution of parts.

Crippled ATC Hires Carriers To Speed Pacific Soldier Mail

UAL and Subcontractor Fly Hawaii, Tokyo, Manila Runs

RESTORATION of wartime efficiency in speedy mail service to U. S. troops at Pacific bases, a serious problem since V-J Day because of the emaciation of military air transport operations in that theater, has been assured with announcement by the Air Transport Command of transpacific contract flight operations by United Air Lines and subcontractor Industrial Air Transport, Ontario, Calif.

To alleviate the critical condition brought on by demobilization of military personnel. the ATC has set up a program which calls for the military and contractors to be operating eight daily round trips between California and Hawaii, and four daily round trips westward from Hawaii, three to Tokyo and one to Manila.

Under the new plan, a fleet of 40 ATC C-54's and 75 airline crews will be used to transport air mail (and possibly all ordinary letter mail), passengers, and high priority cargo over a route which has as intermediate points, Hawaii, Johnston, Kwajalein and Guam. Elapsed time for the 7,000-mile U. S. to Tokyo flights will be approximately 41 hours. All maintenance for contract operations outside the U. S. will be handled by United which currently is operating three daily round trips for the ATC between California and Hawaii. These will become part of the expanded operation.

First flight west under the new program was dispatched March 18 by Industrial Air Transport which, as Consairway, flew over 100,000,000 ton-miles across the Pacific for the ATC during the war. With 15 C-54's the new company will operate some 800,000 miles per month, flying a daily round trip to Tokyo as well as two daily round-trips to Hawaii. The organization, whose personnel pioneered Pacific military-contract flying in 1942 for the Ferrying Command, ATC predecessor, has 45 flight crews and 175 maintenance men based at Ontario, near Los Angeles, where they have taken over the former Army airport. The company, completely employe-financed, intends to capitalize on its personnel's experience in the Pacific by covering that area as a commercial contract operator, in addition to its military schedules.

Another subcontract is held by Orvis Nelson, a United pilot who, with a group of his own, will handle some of the shuttle flights to Hawaii.

ATC schedules over the Atlantic have been reduced to one every eight hours, according to Maj. Gen. Laurence S. Kuter, commanding the ATC's Atlantic division. The division, with 94 C-54's, is still carrying on a larger operation than that of all commercial operators in the Atlantic combined, he said. The division's strength of some 33,000 personnel will be cut 40% by July 1, however.

Plastics Exposition Scheduled

The First National Plastics Exposition, with more than 200 companies participating, will be held April 22 to 27 at the Grand Central Palace, New York City. Among products to be exhibited are many new parts for the construction of aircraft.

CAA Expands Scheme To Charge for Services

The Civil Aeronautics Administration's program for recapturing for the Federal Treasury some of the money it expends on services to civil aviation moved ahead during the past fortnight with creation of a special plans and performance staff, attached to the Administrator's office.

Directed by Alfred Hand, former chief of the CAA division of international activities, the staff will make studies on broad policy matters and develop long-range recommendations for the Administrator, one of its first assignments being to devise procedures for charging civil aviation for federal services. Such charges under consideration, as revealed in AMERICAN AVIATION, Mar. 15, include fees for licensing of all pilots and other airmen, recordation and registration of aircraft titles, and service charges for use of federal airways facilities.

The staff will also handle CAA liaison work on the Air Coordinating Committee, CAA functions in connection with the Provisional International Civil Aviation Organization, and the job of coordinating engineering and standardization work involved in CAA's relationships with public and private organizations.

Members of the staff, other than Hand, are Frederick B. Lee and Frank W. Devlin, program planning officers; Hugh H. Cobb, ACC liaison representative; and Glenn Gilbert, CAA-PICAO coordinator. Lee was formerly in charge of planning and administration on the staff of the Naval Air Training Command at Pensacola; Devlin since 1936 was in the engineering department of Consolidated Vultee Aircraft Corp. at San Diego; Cobb was assistant chief of the contracts branch of the Bureau of Aeronautics, and Gilbert has been chief of the CAA Air Traffic Control Division for more than four years.

Delta Sets a Precedent

Delta Air Lines set a company precedent recently by assigning a name to one of its express flights. "The Rocket" is the designation given Delta's express flight between Chicago and Miami. The company's 44-passenger version of the DC-4 flies 637 miles non-stop from Chicago to Atlanta. South of Atlanta, stops are made at Savannah, Jacksonville and Miami.

Navigators' Group Urges 700 Hours' Experience

National Airline Navigators Association has recommended to the CAB that a minimum of 700 hours experience be set up for flight navigators, as opposed to the Board's current proposal to set 200 hours as a minimum, 50 of which may be approved simulated flight.

"We do not understand why the CAB . . . can set a minimum of 200 hours, one quarter of which does not have to be in actual flight operations, when the ATC and NATS during the war required an average of 400 hours minimum experience for their navigators," NANA said.

"Wartime standards are admittedly lower than those required for peacetime commercial flights. Therefore, we will fight cutting wartime emergency experience in half and applying it to civilian overseas operations."

GIs Reminded of Benefits In Securing A&E Licenses

The Civil Aeronautics Administration reminded honorably discharged veterans last fortnight that they can receive substantial financial help from the Veterans Administration under the G.I. bill of rights in securing Aircraft and Engine licenses.

CAA has prepared a packet of material for veterans interested in securing A&E licenses. The material includes a CAA list of A&E schools and information on the schools, and is available from the Office of Aviation Information, CAA.

Colorado's Program Hits Turbulent Air; Two Groups Oppose Curry's Appointment

Colorado's new state aeronautics program hit rough air on the takeoff last fortnight with at least two aviation groups leveling blasts at the appointment of Maj. Gen. John F. Curry as state director of aviation.

The Pine Valley Flying Club and Colorado Aeronautics Association, both of Colorado Springs, directed resolutions to members of the Colorado Aeronautics Commission and to Gov. John C. Vivian labelling Curry's appointment as "possibly" illegal, and holding further that he "has no qualifications to fill this position."

Curry, now retired from the Army, was in charge of the AAF western technical training command and is a veteran of 30 years service in the Air Corps. The Colorado Springs complaints held that this record "has no significance in the field of civil aviation in Colorado."

"It is claimed by Gov. Vivian that John F. Curry can do things which others cannot do in Washington because he knows Theodore P. Wright, administrator of the CAA, well enough to call him by his first name, which also has no significance . . ." the resolution said.

On the legal aspects of Curry's appointment, the Colorado Springs complainers said that Curry was not selected from a field of three candidates submitted to the governor by the state aeronautics commission, as required by law.

The Colorado commission was created by the state legislature last November, and its program includes state participation in the federal airport program, erection of air markers, development of landing facilities adjacent to scenic and recreational areas, and the enforcement of flight safety regulation.

High in a comfortable sky—a bridge game in the Boeing Stratocruiser's main cabin

Trumps in air travel

Gracious modern living reaches a climax in Boeing's great new Stratocruisers. Never before have passengers enjoyed such complete comfort in the air—or such distance-devouring speed. In the time it takes to play a rubber of bridge, whole states flash below!

The entire interior of the two-deck Stratocruiser is superbly air and altitude conditioned. Fresh air circulates under constant temperature control, providing comfortable, normal atmospheric pressure even at 25,000 feet; complete comfort during climb and descent.

Boeing introduced the first pressurized airliner—the Stratoliner—in 1938. During the war the B-29 Superfortress was the only military aircraft similarly conditioned for crew comfort and well-being. From this background Boeing will soon offer—in the Stratocruiser—altitude-conditioned air-travel comfort and pleasure unparalleled by any other transport.

Stratocruiser—fastest transport in the air

For airline operators, the Stratocruiser, because of its utility and advanced design, offers maximum earning capacity—lowest operating cost. For their passengers—greater speed, comfort, reliability. "Built by Boeing," it's built to lead.

BOEING

National Affairs and Congress

Predicts AAF Strength

Under a program for rebuilding the AAF, critically reduced by demobilization since V-J Day, that service expects to have 400,000 volunteers and at least six wartime-strength long-range fighter and bomber groups by June 30, according to Lt. Gen. Ira Eaker. The AAF's deputy commander disclosed that until the AAF is built up to the required peace-time strength every month will see one long-range fighter and one long-range bomber group formed. At the end of 18 months, he said, "we ought to have a pretty good airforce." He predicted that by 1950 any major industrial country will be able to build giant rockets able to span 3,000 or more miles at a speed greater than that of sound. Accuracy of these weapons, which will carry 20-ton warheads, also will be higher than in the last war.

Navy Asks $385,000,000

The Navy's $3,705,186,000 budget for fiscal year 1947 carries an estimate of $385,000,000 for construction of Naval aircraft. This represents a jump of $280,862,800 from the $94,737,800 obligated for that purpose in the current year. The 1947 appropriation estimate for the Bureau of Aeronautics is $595,000,000, a reduction of $1,886,050,000 from the current fiscal year which reflects war-time obligations.

Spaatz Outlines Doctrine

The importance of scientific research and industrial planning in maintaining a strong air force capable of immediate and expanding application of the American doctrine of air power has been stressed by Gen. Carl Spaatz, commanding general, Army Air Forces. The Air Force-in-Being, he said, "must be supported by a well-balanced, forward-looking program of research and technical development, by an alert, readily expandable aeronautical industry, and by an enlightened public opinion."

Loran Tests at North Pole

Experimental flights over the North Pole are soon to be made by three Loran-equipped B-29's, according to reports from Edmonton, Canada. It was said that Loran stations are being established in Alberta and at other northern points for use by fliers, and that upon completion of the North Pole tests the planes and crews would perform a similar mission over the South Pole.

Seek Action on 2 Bills

Robert Ramspeck, executive vice president of the Air Transport Association, said the airlines will press for early action on two aviation bills now before the House Interstate and Foreign Commerce committee. The one bill—H.R. 3383—would define Federal and state jurisdiction over interstate air carriers. He stated the airlines hoped to avoid duplication of regulations that have plagued other types of carriers. The other bill—H.R. 3446—proposes to eliminate, by Federal statute, the possibility of multiple taxation of airlines. Ramspeck believes there is a possibility of action on both of these bills during the present Congress.

The B-50: An Improved B-29

The B-50, an improved version of the B-29 with Pratt & Whitney 4360 Wasp Majors, has been announced by the ATSC at Wright Field. More power and better flight performance are claimed for the craft, an experimental model of which has been under test since 1945. Boeing is building a production version at its Seattle plant. Speed is reported increased by exhaust jet thrust.

Plan for Squadron Identity

To the extent possible, National Guard air squadrons will retain their old numerical identity under the new peacetime set-up, Gen. Carl A. Spaatz, commanding general of the Army Air Forces, has revealed. Gen. Spaatz feels there should be no duplication in regular Army and National Guard squadron numbers and the Guard group will be required to give up old numbers only when they conflict with regular Army designations.

Army Assigns PROs

Lt. Gen. Harold George, commanding general of ATC, henceforth will head the AAF's office of information services. Col. William Westlake has been designated as the Army's public relations officer with Joint Task Force One, the Army-Navy force charged with carrying out the atom bomb tests at Bikini Atoll in May and July.

Sea-Air Bill Passes House

Sea-Air rescue techniques will be developed and improved by the Coast Guard under terms of a bill—H.R. 3139—which passed the House March 18 and was referred to the Senate Commerce committee. The legislation is deemed important in the light of this country's expanding international air commerce.

Jet P-80— At almost a 45-degree angle, a jet-propelled Lockheed P-80 Shooting Star demonstrates effect of 2000 pounds of additional thrust obtained for 12 to 15 seconds at takeoff by using two Jato rocket-assist units. Shortest takeoff achieved during a series of tests was 1185 feet, about 40 per cent of normal takeoff run for a P-80 carrying a light load.

ATC Division Moves

Headquarters of the Atlantic division of the ATC has been established at Fort Totten, Bayside, Queens, according to announcement by Maj. Gen. L. S. Kuter, commanding officer of the division. ATC operations at La Guardia Field were discontinued last month and have been transferred to Westover Field at Chicopee Falls, near Springfield, Mass.

Would Incorporate CAP

Rep. Hatton Summers (D., Tex.) has introduced a bill, H.R. 5744, which provides for the incorporation of the Civil Air Patrol. The bill lists the names of 48 incorporators—one from each state. Purpose of the organization is to encourage activities in aviation among youth and obtain contribution of efforts, services and resources of American citizens in keeping this country supreme in the air.

Committee Gets Funds for Study

Investigation of the country's transportation system which may result in the establishment of one regulatory agency of all transportation services, including air, moved forward last week when the House approved a $35,000 appropriation for purposes of the study to be conducted by the Interstate and Foreign Commerce committee.

Investigation Coming Up

Sen. Hugh Mitchell (D., Wash.) will act as chairman of the Military Affairs subcommittee which is to hold hearings soon on his bill, S. 1639, which would establish a nine-member National Air Policy Board to investigate air transportation and its relation to national defense and other forms of transportation. The industry asked for the appointment of a group comparable to the old Morrow Board but on the basis of Mitchell's broad bill, may get a set-up that will submerge aviation's interests in the overall transportation question.

Bill Would Make Carriers Liable

Air carriers would be liable for damages due to injury or death of passengers, caused by negligence on the part of the company or its employes, to the extent of the full value of the life of the decedent under terms of a bill, S. 1904, introduced in the Senate Mar. 6 by Sen. Walter F. George (D., Ga.). No limitation under the laws of any of the States as to the amount which might be recovered would be pertinent or relevant in limiting recovery under Sen. George's bill.

Flying-Club Association Formed

The National Association of Flying Clubs, 821 National Press Bldg., Washington, D. C., has been organized as a non-profit association for the purpose of providing assistance in the development and operation of competent flying clubs throughout the country, according to Joseph Vivari, NAFC president. Stated aim of the association is to create a better understanding of the advantages offered by flying clubs, to strengthen the position of existing clubs and promote formation of new clubs. A flying club handbook, "Let's All Fly," is now being prepared by Vivari for early release.

U. S. Forest Service's Fire Control Tests Will Determine Usefulness of Helicopter

By EDWARD PIERSOL

The U. S. Forest Service is currently preparing to analyze the effectiveness of the helicopter in fire control with a series of tests in California's Angeles National Forest. Following the experiment in which six Army Sikorskys will participate, the Service may contract with helicopter manufacturers for even more exhaustive tests, according to Dave Godwin, assistant chief of fire control.

The Forest Service has been employing aircraft for forest protection since 1919. Their use last year, according to Godwin, resulted in an estimated saving over ground facilities of $363,000. During the past year, the Service authorized 1,146 flights for a total of 2,106 hours flying time. Freight hauled by aircraft in fire-control pursuits amounted to 545,149 lbs.

The Service has avoided acquiring its own fleet. The dozen aircraft it owns and operates include: a Cub and a Noorduyn Norseman with floats, in northern Minnesota's lake regions; three Norsemen and four L-5's, in the Washington and Oregon area; and several other Cubs. Now under consideration is a plan to acquire a group of Stinson-type four-place craft. Except for whatever assistance can be obtained from Army bases near their operational areas, the Service's aircraft are maintained by private operators.

However, from a viewpoint of economy and efficiency, the Service prefers to use contractors, most of whom ask a guaranteed number of hours. Fire fighting, essentially, is of a seasonal nature and utilization of its own aircraft by the Service throughout the balance of the year would be negligible. Contractors on the other hand, can put their craft to other uses for income during these free periods. They, therefore, offer a practical solution to the Service's problem. The regional foresters, who head the Service's 10 U. S. regions and have authority to negotiate contracts, recently have been reporting hundreds of applications from new charter and contract operators in their vicinities.

While less than half a dozen contractors are continuously in operation for the Service, this figure's smallness is deceptive. Many times this number are used in the course of a year. These contracts, however, are mostly of a verbal nature and result from emergencies when planes are needed quickly for a specific operation. Rates paid by the Service to contractors vary from $20 per hour for Fairchilds and similar craft to $40 per hour for Travelairs, and $90 per hour for Fords, deemed by officials as the best craft available. The old Ford tri-motor, with its slow speed, large capacity, short landing-field requirement, has proved invaluable, Godwin said. "We don't want hot types. What we need is the same type of packhorse plane as the Alaskan bush pilots prefer."

Reconnaissance, relatively, is the least important chore performed by aircraft for the Service. Its 3,500 lookout towers remain the best means for detecting fires. The aircraft finds its greatest use in transportation of men and supplies to scenes of, emergencies. Dropping of hot meals in containers especially designed by the Service is a recent development. Parachuting of men was proved practicable in fire fighting and generally adopted by the Service in 1939, prior to its adoption by the military. Last year, smoke jumpers made 1,452 jumps while participating in 292 fires. The use of aircraft for fire "bombing," long under consideration, will undergo its latest test and analysis this summer when, in conjunction with the Army, the Service will use B-17's to drop bombs containing extinguishing material on fires in the Montana forests.

'Copter in Primitive Stage, Says Loening

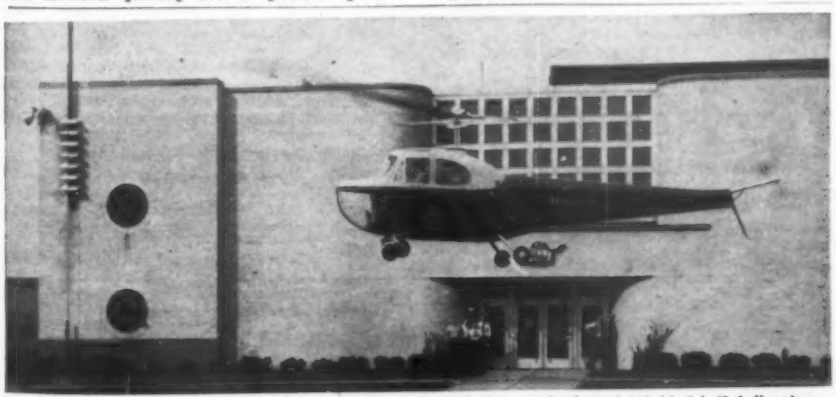
The important conclusion to draw from helicopter research to date is that the faults of the craft are certainly curable, the wonder being that "we have been able to do as much flying as we have with helicopters that are so obviously capable of enormous improvement," Grover Loening, chairman of the NACA helicopter committee, told the second annual forum of the American Helicopter Society, Inc., held in Philadelphia, Mar. 14-15.

Pointing to the over-optimism of seven or eight years ago when it was forecast that the sky would be well filled with direct-lift hovering aircraft by 1946, Loening cautioned that helicopter development still must be considered in a "very primitive state and the wise would not appraise it yet—it is too early."

Results of an enormous amount of work in helicopter fundamental research performed by the National Advisory Committee for Aeronautics for the military services during the war soon will become generally available to all helicopter designers in the country, he stated. Some 20 restricted NACA reports now being considered for general release from restricted category by the joint Army-Navy Aeronautical Board, he revealed, include five on helicopter flight tests, four on vibration studies, three each on performance estimation, full-scale wind tunnel tests, and air foil, and one each on rotor blade structure and jet-drive.

The real problem of helicopter development, he said, is the aerodynamic question of how to drive a rotor edgewise through the air at high speeds, without excessive instabilities, vibrations or stresses, and at reasonable expenditure of power. This problem is posed, "because of that one overwhelming requirement of speed in travel, without which no aircraft will prove itself of any serious wide utility."

Among future developments to be worked on, Loening indicated, are application of jet to the tip as the power source, control of air flow around the tip section to increase efficiency in the forward advancing blade, use of ailerons for lift and angle change, and the difficult problem of vibration which ultimately might be solved by an isolation of the vibrating rotor mount from other parts of the craft.



The Bell 47 Hovers— Bell Aircraft Corp. is beginning production of 500 Model 47 helicopters for commercial operation, following receipt last month of the first commercial helicopter license ever issued. First deliveries of the model shown here are scheduled for this summer.

Great Britain, France Sign Bilateral Transport Pact

5th Freedom, Equal Division Apply to Territorial Services

By FRANK M. HOLZ

GREAT BRITAIN and France have signed a bilateral air transport agreement providing Fifth-Freedom traffic rights on some routes and an equal division of traffic capacity for services between British and French territories.

As fairly accurate estimates can be made for traffic demands between the United Kingdom and European France, the agreement requires advance allotment of capacity to be offered, with adjustments by mutual consent. There is a more flexible arrangement for longer routes.

Rates are to take account of recommendations of the International Air Transport Association. All airline charges are to be approved by the two governments—actually a matter of form only, as airlines of both nations are government-controlled. Rate disputes shall be submitted to arbitration.

The agreement sets up a permanent joint committee to coordinate the services of the two nations. BOAC, Air France, the British Ministry of Civil Aviation and the French Ministry of Public Works and Transport each has two representatives.

Literally hundreds of routes between France and the United Kingdom seem possible under the terms of the agreement. It is reported that the British airline may fly from any point in Great Britain, Northern Ireland or the Channel Islands to any or all of a dozen towns in France, including Paris, Cherbourg, Nice, Bordeaux and Marseille, as well as to Corsica and North Africa.

In turn, Air France may operate from any point in France or French North Africa to any or all of an equal number of British towns, including London, Edinburgh, Manchester, Bristol, and Belfast.

It is understood that one of the reasons for this provision is to reduce congestion at Paris and London by setting up numerous routes to by-pass these capitals. Officials stated that they expected service between London and Paris would soon reach a frequency of one every half hour, eventually to be stepped up to one each 15 minutes or less.

The agreement approves transit and traffic rights on various long-distance routes crossing British or French territories. Great Britain receives approval for routes to India, South Africa, Australia, New Zealand, and South America via French points. France may operate routes to Madagascar, Reunion, China, Japan, Noumea, Khartoum and other points via British territory.

IATA Squabbles Over Fares

The conference on European traffic held in Paris by the International Air Transport Association met difficulties over the matter of fares. Delegates of PAA, TWA, and AOA were reported to have advocated fares near the U. S. level, but European airlines objected, claiming they faced higher operating costs. Airlines from 12 countries agreed on all other major topics, including operating standards and reservation procedures.

PICAO Committees In Closed Sessions

Most of the work of the PICAO North Atlantic route service conference held in Dublin was done in closed sessions by various technical committees: air traffic control, aerodromes and ground aids, communications, search and rescue, and meteorological. Sean Leydon, secretary of the Irish Department of Industry and Commerce, presided over the plenary sessions.

An *ad hoc* committee has been created to decide the contents and makeup of a route service manual.

In Montreal the airworthiness division convened for its first session, electing as chairman Gordon Berg, Australia. Charles Dycer is U. S. representative. The group will revise Annex G (airworthiness) drawn up at the 1944 Chicago conference.

Lord Brabazon, head of the British delegation, stated that he hoped the "United Kingdom would not be maneuvered into accepting standards today which are only obtainable by one country"—the U. S. which, because of the war, "has six years experience ahead of everybody else in the development of aircraft."

The report of the PICAO facilitation division recommending reduction of procedural delays in international air services has been forwarded for comment to the 42 member nations. Replies were requested within 60 days.

Latin American 'Bloc' Reported in Making

Reports have been received of plans for an "air bloc" of the Latin American ABC nations—Argentina, Brazil, Chile—to protect air services of these nations "against foreign competition." Argentine government officials are said to sponsor the plan and are reported to have discussed the matter with Chile. Brazil so far appears wary of the idea and has held aloof.

Only government-owned or nationally-owned airlines are to be eligible for bloc membership. Plans for the bloc are reported to include a unified hemispheric air policy and a joint regional air service for South America with the support of the three governments against foreign competition.

What the sponsors of the plan mean by "protection against foreign competition" is not explained. It is not made clear, for example, whether Pan American-Grace Airways (Panagra), Pan American Airways, and British South American Airways are to be denied the routes between ABC nations which they operate at present.

British Name 'Trade Ambassador'

Owen S. Tudor has been appointed "trade ambassador" for the Society of British Aircraft Constructors, with headquarters in New Delhi, India.

In Nicaragua—This modern ticket office was opened recently in Managua, Nicaragua, by Transportes Aereos Centro-Americanos, S. A. (TACA).

LAMSA Opens Base

Lineas Aereas Mexicanas, S.A. (LAMSA), United Air Lines subsidiary, has opened its new $500,000 maintenance base at Torreon, Mexico, according to Allan F. Bonnalie, persident and general manager. The airline soon will put DC-3 equipment into service and eventually will retire its Boeing 247s. About 20 LAMSA pilots have completed advanced courses at United's pilot training center at Denver. Thirty more are expected to graduate.

Lockheed of Canada Revived

Lockheed Aircraft Corporation of Canada, Ltd., which was formed in 1939 but has been dormant since, will now be put into operation, according to Robert E. Gross, Lockheed president in both Canada and the U. S. The chief activity of the company will be to supply spare parts for Lockheed models 10, 12, 14, and 18 (Lodestar) aircraft for use within Canada and for overseas export.

Korean Airways Opens Service

The newly-formed Korean National Airways has begun operation with a daily service between Seoul and Fusan. A second service Seour-Kaishu is to begin next month. Aircraft fleet consists of five Japanese-built DC-3s and about six Mitsubishi MC-20s.

Air France Continues Survey Flights

Air-France will continue survey flights to Brazil and Argentina, using the new four-engined Bloch-161, as well as the giant Latecoere flying boat used since last autumn. For its North Atlantic services, the French line will use Constellations, of which it has ordered 13.

SILA Reports 1945 Business

Swedish Intercontinental Airlines (SILA) made 27 round trips in 1945 between Stockholm and New York, carrying 13,158 lbs. of penicillin and 20,000 lbs. of other cargo on eastbound flights. Mail was carried westbound only. The two Swedish airlines, SILA and ABA, increased their combined route miles from 2235 in 1944 to 14,500 in 1945; miles flown from 672,788 to 2,325,000.

Romanian Line Reported Dissolved

LARES, the prewar Romanian airline, has been reported dissolved. It will be succeeded by a new joint Russian-Romanian company.

BOA Lowers Round-Trip Fares

British Overseas Airways, which has been charging double the one-way fare for round trips, will give a 10% reduction on return bookings beginning this month.

Arabian Airport Nears Completion

The U. S.-built airport at Dharan, Saudi Arabia, is almost completed and will be operated by the U. S. Army for a period of three years, but is to be available for commercial airline use by any nation. Arabians will be trained to operate the field eventually.

NOW... Bendix-Pacific GENEVA-LOC ACTUATOR WITH MANUAL OVERRIDE

With the motor housing serving as a handle it is only necessary to lift the release lever and rotate the actuator, thus rotating the output shaft. Detents indicate positions.

FOUR TYPICAL GENEVA-LOC MOVEMENTS

4 POSITION 90°

5 POSITION 72°

3 POSITION 45°

2 POSITION 60°

GENEVA-LOC ACTUATORS—with positive mechanical positioning—now are available with a 9-ounce adapter which permits manual operation in the event of failure in the electrical system. The adapter can be used wherever the installation of Geneva-Loc actuated valves or other devices are accessible in event of an emergency.

An exclusive development of Bendix-Pacific engineers, Geneva-Loc Actuators incorporate a geneva-movement cam which rotates the shaft to the exact position, then locks it against movement. This mechanically-controlled positioning is completely independent of motor overtravel and all limit switch adjustments, brakes, clutches, etc., are eliminated. Geneva-Loc Actuators require no attention.

In addition to a complete line of Geneva-Loc operated selector valves, shut-off, and check valve combinations by Bendix-Pacific, the Geneva-Loc Actuators also are available for installation with other valves and controls. Geneva-loc operated fuel selector and shut-off valves are now available from the major fuel valve manufacturers.

ELECTRICAL AND HYDRAULIC EQUIPMENT FOR AIRCRAFT

Pacific Division
Bendix Aviation Corporation
NORTH HOLLYWOOD CAL.

PRODUCT OF Bendix

'Community' Airline Pays Off, Orders New 8-Place Planes

Robinson Operation Termed 'Unusual' in Air Transport

TRAFFIC on Robinson Airlines' "community" type service between Ithaca, N. Y., and New York City, and Ithaca-Buffalo, is showing no signs of falling off, and the company is proceeding with plans to replace its Cessna equipment with new eight-passenger Beechcraft 18-Cs.

In some ways, Robinson Airlines constitutes one of the more unusual developments in air transportation. It has proved, according to those familiar with the operation, that a relatively small but wealthy city (Ithaca has a population of 27,000, including 7,000 Cornell students) with inadequate rail service and with a definite community of interest with nearby large cities, can and will support an air service. It not only welcomes the service but its citizens are willing to pay over 8.5c a mile. They save time (Ithaca-New York, one hour 10 minutes) and even at this fare, which totals $15 for Ithaca-New York, they pay little more than train fare because the train ride is very circuitous, taking eight hours.

Since the line started on Apr. 6, 1945, over 1,400 passengers have been carried, and C. S. Robinson, president, reports that there has been no decrease in demand. As a matter of fact, since the start of operations the company has received over 3,200 requests for space and the imminent replacement of the two four-passenger Cessnas with two Beechcrafts will merely enable the line to meet present demand, he believes.

Operates From Teterboro

Robinson, who is also president of Robinson Aviation Inc., which did over $8,000,000 worth of business for the government during the war making Vibrashock mounts for aerial cameras, radios and other equipment, decided to start the airline after commuting between Ithaca and New York in his private plane. Aiding in the management of the airline is Dorothy Robinson, his wife, who serves as vice president and treasurer.

At present the company operates from Teterboro Air Terminal, a 20- to 30-minute limousine ride from downtown New York. In Ithaca the city airport is being used, but Robinson plans to build a new field and already has purchased 100 acres of land. About 500 acres of additional land are under option by Cornell University and will be released to Robinson as additional area may be required. The municipal airport is used at Buffalo.

In New York, the airline has a ticket office in the Hotel Lincoln and operates its own limousine service from there to Teterboro. To advertise its service, both radio time and newspaper space have been used. Much of the business carried is "repeat" business. (During a recent visit to the airline in New York, this reporter, while riding the Robinson limousine to and from the city, noted a dealer in government surplus, who was using the airline several times a month; a well-known Ithaca attorney, also a repeat passenger; a dealer in baby chicks, an Army colonel, and a Navy WAVE—all repeats).

Operations at present are conducted only under contact conditions, but instrument flights will begin with inauguration of the new equipment, which will have standard and VHF transmitters and receivers and automatic direction finders. Five experienced pilots are employed, some having better than 5,000 hours. Among them are Ray Moulton, former chief production test pilot for Curtiss-Wright, and H. R. Brown, who flew C-54s on the ATC Crescent run from the U. S. to India.

Robinson is interested in securing a certificate from the Civil Aeronautics Board, and his application has already been heard by Board examiners. In addition to present routes, he has asked for Ithaca-Washington, Ithaca-Rochester and Ithaca-Albany. On these routes he estimates that during the first three years he will show net income (including mail pay) of $50,000, $75,000 and $100,000 respectively.

E. B.

What Next?

The business of getting airline endorsements for watches is becoming more hectic all the time. In 1944, Jay Jerome Williams & Associates, Washington, D. C., public relations firm, undertook a campaign for Waltham Watch Co. which up to that time had had no airline tie-ups. Williams sewed up several score airlines of the world including Braniff, PCA, Delta, Northeast, and a number of other U. S. carriers, and created an Air Time Research Institute. Now the Williams firm is representing Benrus and is organizing an Academy of Time. It is doubtful if there is an airline anywhere that hasn't tied up with at least one watch company.

Non-Scheduled Operators Weigh Problems At Joint Air Transport Users Conference

Accomplishments to date and legal-economic threats of the future were weighed by uncertificated operators who last fortnight attended the Second Joint Air Transport Users Conference staged by the National Aeronautics Association in Washington to "explore and analyze the problems and opportunities in the field of non-scheduled feeder airline and charter carrier air transport."

Reporting that a survey by his organization, Edward S. Evans Transportation Research, had indicated air freight forwarders are anxious to utilize the services of air cargo carriers and would, were they not prevented from doing so by terms of the Civil Aeronautics Act, Director L. H. Brittin suggested that the CAB establish a classification of air freight consolidators. The classification, he said, could be limited to those persons who do not operate aircraft, assuring that the air freight consolidator will remain a non-operating company.

Need for introduction by military and civil authorities of an educational program to discourage those who propose to enter the non-scheduled field who will, "by reason of lack of knowledge of the business, lack of preparation or capital, or for any other reason, do serious injury to themselves as well as to the sound contract carrier" was seen by Joseph J. Mitchener, Jr., executive director of the Feeder Airlines Association. For contract carriers he recommended imposition of the least possible restrictive economic and safety regulation "if it is decided that any specific legislation is required." The charter air carrier, he stated, can best be aided by: (1) permitting him to continue to operate without specific economic and safety regulation, except in cases where it is found that regulation is essential, "in which case let's have definitions which will regulate only those which require and can stand additional regulation"; (2) continuance of efforts by CAB and CAA to reduce further and simplify existing regulations which tend to complicate his business and discourage his potential customers.

E. Merritt Anderson, Anderson Air Activities, Milwaukee, told the conference that ch er operations cannot at the present time, nor for a long time in the future, be competitive with scheduled air transport between scheduled stops. "It is economically impossible," he said, "for a fixed base operator to carry passengers for four to five cents a mile." However, people in most places in the country with populations under 25,000 cannot expect scheduled airline service in the foreseeable future. In such places, industry must "avail themselves of either charter air service, or purchase flight equipment for their own operations." In Wisconsin, he pointed out, 61.4% of manufacturing establishments are located in towns of under 25,000 population.

Short-haul airlines are in the best position yet for competing with surface carriers as the result of improvements in airplane design and new devices developed by transport plane manufacturers, the conference was told by Ivar C. Peterson, director of the Aircraft Industry Association's Technical Service. Calling for emphasis on speedier ground service to increase the convenience of short-haul airlines, he concluded that future passenger fares will be governed largely by ground and indirect expenses. Such expenses represented two-thirds of the cost of transporting an air passenger in 1943.

Operators should be required to report essential economic data as to their operations in the simplest form consistent with securing adequate information, George W. Burgess, assistant to the assistant secretary of Commerce for air, said. "The analysis of the data will provide the CAB and the industry itself with the basic information on which eventual regulation can be based." Such regulation, he stated, will have to take into account such factors as the commodities carried, the type of equipment used, the nature of the operation, its relationship to other types of operation, the areas covered, and the schedules, if any. Classification of operations, Burgess said, is an essential prerequisite to non-restrictive promotional regulation.

Veterans' Air Will Operate Specialized Cargo Service

Company Maintains Own Overhaul and Repair Shops

VETERANS' AIR Express Co., 11 Commerce St., Newark, N. J., currently is operating an average of four round-trips a week between New York and Miami, but the company plans eventually to align itself almost entirely with cargo services.

Headed by Saunie Gravely, as president, the operations, flight and maintenance crews all are veterans. Present equipment includes three DC-3s with two more on order. The company maintains its own overhaul and repair shops.

The company began operations initially at Teterboro Airport, N. J., but found more adequate facilities at Newark Airport, where it is now based. Operations are based on a non-scheduled charter basis arranged through shippers for carrying any product transportable by air throughout the eastern and southern sections of the U. S.

One of the company's DC-3s recently was converted for passenger service with bucket seats, while another is a "plush" job with regular airliner seats and other luxury appointments. Modifications on the passenger aircraft were done in the company's shops.

Besides Gravely, company officials are Harvey G. Stevenson, vice-president, and Nellie C. Brenner, secretary-treasurer. Arthur Brenner, Newark produce man, was one of the original planners of the organization.

Other company officials are Jack Stettner, operations manager; Robert C. Chambers, chief pilot; Albert Behrens, engineering-maintenance; Robert Krohn, sales representative; John W. Greenleaf, coordinator; Dick Hutson, traffic manager; John Noll, advertising and publicity; Robert Gries, sales manager. The staff includes 25 ex-combat pilots.

Veterans' Air Express recently opened an office in Baltimore under the direction of R. H. Bolton. It will handle passenger traffic from Baltimore to Miami and other points.

International Plans Cargo, Express Runs

International Air Lines, Empire State Bldg., New York, has inaugurated a cargo and passenger service between Newark Airport and Miami with DC-3s. Within three months the company says it will be operating six DC-3s and two DC-4s.

The company said passenger service would be temporary, since its plans call for a complete air express and air freight service to Florida, the Caribbean and South America. World-wide charter operations also are planned.

Contracts have been signed to carry women's dresses directly from the manufacturer in New York to department stores anywhere in the western hemisphere within 24 hours. All pilots are ex-servicemen.

Company officials include Leonard L. Taicher, president and general manager; William Tomar, general counsel, first vice president; Julius Tomar, representative, Port-au-Prince, Haiti, second vice president; Henry Taicher, third vice president; Irving C. Lippman, secretary, and Jess Mankin, chief of operations.

Intrastate Operator Will Seek Mail Routes

Texas Air Lines, two-month-old intrastate operator of Houston, will seek to carry mail over its six routes on a service rate without subsidy. Routes operated are:

Houston-Victoria-Corpus Christi-Brownsville; Houston-Victoria-Corpus Christi-Alice-Laredo; Brownsville-Wesleco-Laredo-Eagle Pass-Del Rio; Houston-Galveston; Houston-Byran-Temple-Waco; Dallas-Ft. Worth; Houston-Palestine-Corsicana-Dallas-Ft. Worth. Two round trips each way are flown daily on each route.

In scheduled operation since Jan. 17, 1946, Texas Air Lines has a fleet of 19 twin-engine Cessnas, and has on order 20 D-18C Beechcraft, 10 of which it will receive in May, and the remainder in September. Average load factor now being developed in 75%.

The organization, headed by Cyril P. Erwin, has 20 flight personnel, 35 maintenance personnel, 25 traffic and 15 office employes. Erwin is a partner in the Erwin-Newman Co., builders of prefabricated steel buildings and hangars.

Deluxe interior of one of Transair, Inc.'s converted C-54s used in charter operation between New York and Miami.

Pacific National Air Express, Grand Central Airport, Glendale, Calif., has been organized by R. H. Anderson, former NATS flight service officer, and Paul Bulpitt, Jr., recently discharged from the Army, to fly non-scheduled air cargo. The company will operate five C147s. Proposed service pattern covers Los Angeles, Kansas City, Detroit, and New York.

Trans Caribbean Air Cargo Lines, Inc., contract carrier, has named Brig. Gen. Lawrence J. Carr, former commander of the Seventh Bomber Command on Okinawa, as chairman of the board. Carr will have complete supervision over the airline's operations.

Air Freight, Inc., recently organized to operate an air freight line out of Newark Airport, has established offices and headquarters at 875 Broad Street, Newark, N. J.

American Air Transport, 332 S. Michigan Ave., Chicago, is operating a cargo service with two trips daily between Medillin, Colombia, and Bellacrus, Colombia, with three DC-3s. Foreign headquarters of the company are at Bogota, Colombia.

Caribe Airways, Puerto Rico, is operating Miami-San Juan flights Monday, Wednesday and Friday on a charter basis with DC-3 equipment. Bookings are made by Potts Brothers, McAllister Hotel, Miami, which also handles bookings for Caribbean Air Transport.

Modernaire, Inc., 31 Northeast Third Ave., Miami, is contracting for air cargo on a plane-load basis domestically and foreign. DC-3 equipment is used. Among the contractors are Universal Airlines, Mason-Dixon Lines, and Springfield (Mass.) Feeder Lines. Daily Miami-New York passenger charter trips also are flown.

Davis Airways, Logan Airport, Boston, is operating charter services between Boston and Miami, via New York and Washington with a DC-3. Two round trips a week are being flown. The company contemplates purchase of another DC-3 for cargo service.

Trans American Airways, 420 Lexington Ave., New York, is operating Lockheed Lodestars between New York and Miami on the basis of one trip a day. The company also operates a Grumman Goose from Miami to Nassau and Cat Cay on a charter basis, with a fare of $250.

Air Cargo Transport Names Suhr

Air Cargo Transport announces appointment of Maj. Vincent D. Suhr, formerly with the AAF, as purchasing agent.

Skyvans to Start

Louis M. Clark, president of Continental Skyvans, has announced that service will start this month between Oakland, Calif., the home base, and New York City. Converted C-47s and BT-13s will be used. Major cargo eastbound will be California fruits and flowers and westbound, machine parts and style merchandise.

AA Installs Visual Boards To Record Reservations Data

Automatic Televisor Gives Instantaneous Information

WORKING TOWARD more speed and efficiency in the handling of reservations information, American Airlines has installed an automatic Televisor board in its downtown Boston reservations office and a manually operated visual board in its Washington National Airport reservations center.

The Boston installation, a complicated electro-mechanical device for the automatic handling of reservations information, was built and installed by the Teleregister Co. of New York.

The reservations agent, on receiving a request for space on a certain flight on a particular day, depresses red buttons for date, black for flight number, on a box resembling an adding machine. She switches the start key on the front of the box, and the information appears in less than one-fifth second.

If there is space available, a green "check" light appears. Should space be available over only a portion of the route, or not at all, a red light flashes on next to the name of a city, indicating no space beyond that point.

The Washington installation, shown in the accompanying photo, was designed by Bell Telephone and is similar to boards used by Bell to show long distance telephone traffic information. American's board shows 18-day space availability for every leg of every flight through Washington by means of movable triangular and round plugs of white, black, red and green.

American's private transcontinental telephone line, used for passenger reservations transactions, was described in AMERICAN AVIATION, Mar. 15.

RESERVATION REQUEST PROCEDURE CHART

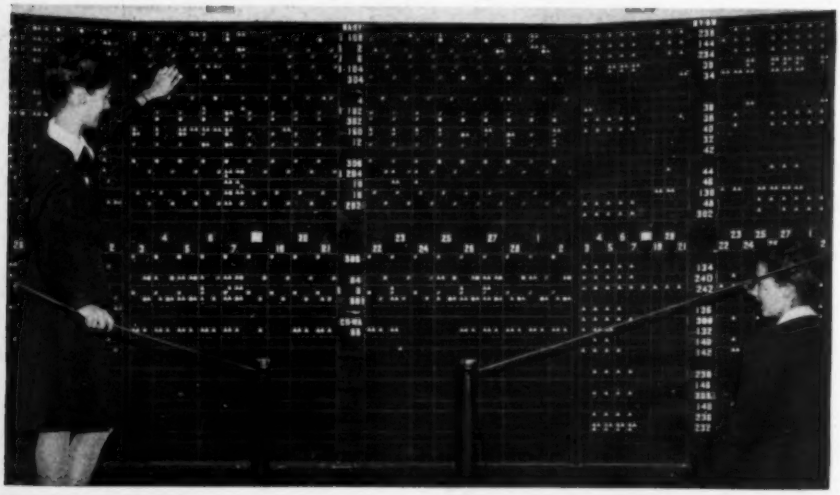
SALUTATION—"AMERICAN AIRLINES RESERVATIONS"

1. Determine Destination
2. Ask Passenger Date and Time He Wishes to Leave
3. Check Availability of Space
4. Quote Other Usable Departure Times
5. Promote Flight Selection
6. Get Passenger's Name
7. Get Office and Home Phone Numbers
8. Crystallize Transaction

A.	B.	C.
If Space Available—Confirm using 5 D's	If Desired Flight Not Available—1. Offer Alternate 2. Suggest WL	If Space Not Locally Available—Advise Passenger we will request and call back

9. Solicit Return or Continuing Reservation
10. Make Ticketing or Time Limit Arrangements
11. Make Check-in Arrangements
12. Ask Passenger to Contact Us if Plans Change (Use "Won't You" Phrase)
13. Thank Passenger for Call

American Airlines' telephone reservationists use this check-off list as a guard against forgetfulness and duplication. The "5 D's" referred to are: Day, Date, Departure Time, Destination and Desired Number of Seats. "WL" refers to the waiting list.



Since American Airlines reservationists handle 70,000 calls monthly for space out of Washington the visual board installed at Washington National Airport effects a saving of time and effort by showing space availability for every leg of every flight covering an 18-day period. White round plugs on the board indicate space available at Washington; white triangular plugs indicate space available at other cities; black and white round plugs indicate no space at Washington; red plugs indicate cancellation of flight; green indicates a full waiting list. Miss Raye Hudson, left, and Mrs. Ruth Summers are shown recording new information on the board.

Money, Indeed, Talks

George Burgess, assistant to William A. M. Burden, assistant Secretary of Commerce, told the Northwest Annual Airshow in Minneapolis last fortnight that the law of economics, rather than scientific development, will be the limiting factor in commercial airplane speeds.

"In short," he said, "the 200-to-300-mile-per-hour airplane at three cents a mile looks much more inviting to me than jet propelled 400-to-500-mile-per-hour cocktail lounges with running hot and cold stewardesses."

"The idea of breakfasting in Minneapolis, having a leisurely lunch in London, and dining in Calcutta is glamorous indeed. But like all glamor, it is beyond the pocketbook of the ordinary traveler."

PAA Steps Up Pacific, Latin American Flights

Pan American Airways stepped up its services in the Pacific and to Latin America last fortnight with a series of weekly Constellation charter flights from the U. S. to Shanghai via Tokyo and the substitution of DC-4 equipment for Boeing 307 Stratoliner between Miami and Balboa, C. Z.

The weekly charter flights in the Pacific are being operated under contract with United Nations Relief and Rehabilitation Administration, and will continue through the spring and early summer. Pan Am will survey the northern route between Tokyo and Adak on return flights without passengers.

Pan Am said the Boeing 307 equipment taken off the Miami-Balboa run would be shifted to operate between Miami-Barranquilla, replacing DC-3 equipment now in use. Through service between New Orleans and Balboa with DC-4s is also scheduled.

Meantime, Pan American was preparing to inaugurate Constellation schedules between the U. S. and Hawaii after ironing out fuel-payload problems involved in the long over-water hop. CAA approved procedures worked out by Wright Aeronautical Corp., for Constellation flight engineers to solve the problem of lean mixtures in the big engines.

Kinports Directs Expansion Of UAL Tour Department

United Air Lines is expanding its travel and tour department under direction of L. B. Kinports, manager of the carrier's agency and foreign department, in anticipation of increasing tourist business. Offices have been established in New York and Chicago.

Heading the New York tour and foreign travel office is Leon Morrier. Eastman Iremonger will assist Morrier as travel and tour manager, Herbert H. Murphy has been named agency manager and Isobel Kane is women's agency representative.

In the Chicago office, Paul Pearson is travel and tour manager and James L. Repp is agency representative. Similar offices will be established in Boston, Los Angeles, San Francisco, Detroit, Philadelphia and Seattle.

Ceiling Zero

ALL FLIGHTS ON SCHEDULE

The new Honeywell blind approach Autopilot will bring planes in automatically regardless of weather conditions. This new electronic Autopilot, developed primarily for the commercial airline market, is based on experience gained in designing and building more than 35,000 Automatic Pilots for the Army Air Forces.

In addition to blind approach with the existing airport ground equipment, the new Autopilot provides increased simplicity of operation, a ride control which reduces discomforts of rough air, and automatic synchronization of the Autopilot with the airplane's attitude, which eliminates the necessity of "trimming" the Autopilot before engaging.

The new Honeywell Autopilot, weighing less than 60 pounds, is offered as a basic system to which blind approach equipment and other accessories can be added at any time, all designed to produce increased safety and augment the pilot's capabilities. Minneapolis-Honeywell Regulator Company, Aeronautical Division, 2667 Fourth Avenue South, Minneapolis 8, Minnesota.

CREATIVE ENGINEERING

Makers of the famous M-H Electronic Autopilot, used on AAF four-engined bombers

MINNEAPOLIS **Honeywell**

CONTROL SYSTEMS

Flying Show-Case—No muss, no wrinkles, no excess weight, no wasted space—these are achieved by United Air Lines in flying fashions in glassine bags hanging on racks in cargo planes. Left to right: Sam and Jane Taylor, Los Angeles stylists, and Tony Frank, United cargo representative, show how the first shipment was handled.

Transatlantic Passengers Eat Pre-Cooked Frozen Meals

Pre-cooked "frozen meals" are being served passengers on Pan American Airways' transatlantic runs. Prepared by the Maxson Food System in a Long Island plant, all foods are fully cooked, placed on a partitioned plate, flash-frozen at 20° below zero and kept at a temperature not exceeding 10° above zero. Each plate is wrapped in Patapar paper and then sealed in a laminated paper envelope. Just prior to the plane's departure, the meals are placed aboard in a pre-chilled balsa-wood box, covered with stainless steel, in which they can be kept frozen for 48 hours, or longer if dry ice is used.

Transportation Groups Seek Removal of Travel Barriers

Representatives of transportation and travel interests, including the Air Transportation Association, have formed a committee to study methods whereby unreasonable travel restrictions may be removed in the interests of promoting world tourist and business travel. M. F. Redfern, Secretary of ATA, has been named chairman of the committee.

Other members are: Almon E. Roth, president of the National Federation of Shipping, Vice Chairman; H. M. Paulsen, president of the American Society of Travel Agents; Russell E. Singer, general manager of the American Automobile Association; Willard Givens, Executive Secretary of the National Education Association; and Paul M. Hawkins, Washington representative of the American Hotel Association.

PAA Opens Express Service

Pan American Airways is offering express service to American shippers to Belgium, France, Sweden and Switzerland. Rates include: Brussels from London, 12c per lb., minimum charge 52c; to Paris from London, 15c per lb., minimum charge 64c; to Stockholm from London, 54c per lb., minimum charge $2.40; to Goteborg from London, 45c per lb., $2 minimum; to Geneva from London, 31c per lb., $1.36 minimum; to Zurich from London, 33c per lb., $1.44 minimum.

Airline Commentary

AS YOU KNOW, "no-shows" are those pesky people who make reservations (sometimes even buy tickets) and then don't show up for the flight . . . And don't think this isn't a problem . . . The most recent issue of Chicago & Southern's house organ notes that last November C&S had 1,700 no-shows while December's total was 1,250 . . . Then the company instituted a ticket deadline which helped matters some . . . We figured that 1,700 no-shows works out to about 57 a day—almost three DC-3 loads . . . That's a lot of lost revenue . . . And it will become more serious with the advent of larger equipment with more seats to sell . . . Maybe there should be a more intensive campaign to make the public aware of this evil . . .

We have here a memorandum from Wayne W. Parrish, our editor and publisher, who made a quick trip to Montreal recently . . . We thought you might be interested in his impressions of the trip . . . He says: "Colonial's non-stop from New York to Montreal is a good and convenient service. The 4:30-6:40 p.m. trip I took doesn't call for meal service but Colonial puts on a very good snack consisting of beef or pork sandwiches and beverage. On returning I made my first flight with Northeast Airlines (leaving only National and Essair to go) and took the morning milk run to Boston, with stops at Burlington, Montpelier and Concord. NEA's service is quite good although the morning breakfast might be improved somewhat without going into a full eggs-and-bacon service. We left Montreal with seven passengers and picked up more on the way to Boston, and from Boston to New York the plane was just about full. The customs stop at Burlington is quite a lengthy nuisance but it isn't NEA's fault. For my first NEA trip I had Capt. B. S. Dixwell, 1st Officer M. M. Sevigny and Stewardess R. P. Dority. I liked the way Dixwell handles the DC-3—none of those sharp banks which don't go well with some passengers. From Boston to New York the crew was composed of Capt. E. A. Cataldo, 1st Officer M. W. Wood and Stewardess L. M. Power. It was a good flight. In Montreal NEA's district traffic manager, Harry Cooper, is getting himself some good traffic space, moving out from the Colonial office. Martin Foley, United's traffic man for that part of Canada, is bewailing the loss of wartime ferry pilot business, and is looking for ticket office space; he has to move out of the Thos. Cook office. American's Murray Stainton is crowded into a little cubby-hole at the Windsor Hotel (greatly over-rated as a hotel, incidentally) but has promise of more and better space. TCA and BOAC have good locations, as does Colonial. Air traffic is booming in the Montreal area." . . .

TWA and the Lockheed Constellation got another two million dollars worth of free publicity the other night on Bob Hope's radio program . . . Almost the whole show was built around his trip from Los Angeles to Cleveland . . . Prize crack of the evening was Hope's remark that it took him 11 hours to get from LA to Cleveland—seven hours in the Connie and four hours from Cleveland airport to the Carter Hotel . . . Are you listening, airport planners? . . .

Some of the airlines are really out after business and it inflates our ego to think that some sweet day their representatives may be coming around and suggesting that we use their service next time we take a trip . . . No more of this "Is this trip necessary?" stuff . . . United Air Lines is pushing vacation travel with a very catchy slogan: "Spend your time THERE—not GETTING there" . . . And we recently received a very attractive folder from United, designed to appeal to dog lovers . . . The idea is that if you plan to take your dog to a distant city to enter him in a dog show, why don't you and your pooch fly United? . . . They even have a man in charge of the Dog Shipment Division . . . This is really departmentalization . . . But if it produces business, more power to them . . . We also understand that an airline is considering putting on baby specials—flights for mothers with small children . . . We had a suggestion to that effect in this column some months ago, so we'll be interested in seeing how the plan works . . .

Cooperation between airlines has reached a new high . . . It was payday for Braniff Airways' employes in Chicago and a Braniff plane was on its way from Dallas with the checks . . .Bad weather prevented it from getting into Chicago and a landing was made at Milwaukee—a highly undesirable place to have the checks . . . It looked like Braniff's boys and girls would have to hock the family jewels to tide them over a late payday when into the picture stepped PCA . . . Thomas T. Hinman, PCA's Chicago general manager, was about to leave Milwaukee for Chicago by train . . . So—you guessed it—he volunteered to deliver the $20,000 to $25,000 worth of checks, and did so—on time . . . The day was saved . . . PCA comes through again . . .

ERIC BRAMLEY

Airline Personnel

Traffic

M. Archimbaud, for many years in the Peruvian diplomatic service, has been named assistant to **Charles L. Gallo,** vice president-traffic, of TACA. **William J. Ferris,** with TWA before the war, becomes dtm for TACA at Miami.

T. E. "Ben" Oakes has been named TWA's manager of contract and charter sales, covering the fields of conventions, athletics, theatricals and similar activities.

Kester T. Willard has returned to United Air Lines from ATC and has been named charter service coordinator at Chicago headquarters.

Arthur L. Hewitt, dtm for Western Air Lines in Los Angeles, becomes general manager of agencies for the system.

Oakes Archimbaud Henley Hewitt Willard Vonegut

Operations

Robert K. Buckle, who served as personal pilot for Lord Louis Mountbatten in India, has returned to United Air Lines as a flight captain.

Leslie Tirrell Ridenour Campbell Morrisette Cowen

Lt. Col. Wilbur W. White and **Robert V. Carroll** have been named to newly created Braniff Airways positions as western division reservations manager and cargo manager.

Lt. Col H. Kurtz Henley, recently released from ATC, has rejoined Eastern Air Lines and becomes manager of special events in the sales department. **Franklin F. Vonnegut** has returned to Eastern from ATC as manager of the newly re-created northwestern division with headquarters in Chicago. **W. L. Morrisette, Jr.,** former EAL district manager in St. Louis, becomes district manager at Boston, succeeding **John M. Lyons,** who left the company to join a New York City bank. **Richard J. Currie,** an ATC dischargee, has rejoined Eastern as northern New Jersey sales representative, with Newark headquarters.

Pierre Rouselle has been named passenger traffic manager of Air-France in New York.

Frederick S. Cowen, a Navy veteran formerly with American Airlines and Western Air Lines, has joined Pennsylvania-Central Airlines as district sales manager, Washington. **Henry H. Fitts,** transferred from Chattanooga by PCA, becomes traffic representative in Birmingham. **Stephen Horton,** PCA supervisor of training in Washington, has been promoted to manager of telephone and counter sales in Birmingham.

Comdr. Eugene Richards and **Lt. Edmund Vail Cliff,** NATS veterans, have joined Panagra's traffic department in South America. Richards is a former United Air Lines employe. Cliff was associated with Eastern Air Lines.

Lt. Col. Claude P. Hutchens, Jr., of the Army's troop carrier command, has rejoined Pennsylvania-Central Airlines as supervising operations agent at Pittsburgh.

Col. Joe George is now in charge of Eastern Air Lines' weather bureau at Atlanta following his honorable discharge from military service.

Miscellaneous

Roy H. Van Horn of War Assets Corp., has joined Braniff Airways as director of maintenance and engineering.

H. G. Leslie, Eastern Air Lines' superintendent of maintenance, has been elected chairman of engineering and maintenance of the Air Transport Association for 1946.

Lt. Alvord Sheen, formerly attached to the carrier Enterprise, has joined the New York office of Alaska Airlines as assistant to **Raymond W. Marshall,** chairman of the board.

H. van der Gaast has been appointed general purchasing agent for TACA with headquarters in Miami.

Col. Addison H. Douglass has joined Northwest Airlines as chief plant engineer, succeeding **Paul L. Thomas,** who has been named manager of the plant and equipment engineering division.

Matthias E. Lukens has been appointed administrative assistant to **O. M. Mosier,** American Airlines vice president.

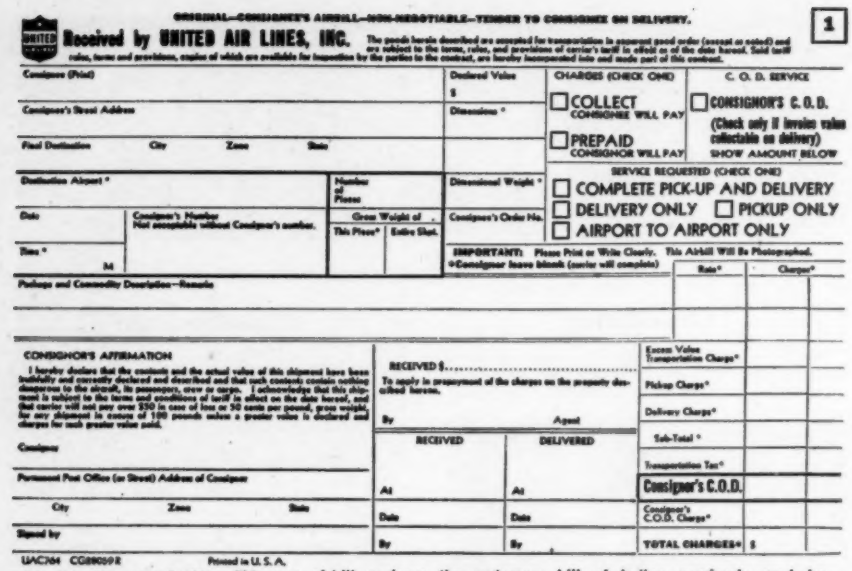
Francis R. Hammack, former FBI special agent, has been appointed to the staff of **C. Bedell Monro,** president of Pennsylvania-Central Airlines, as head of territorial development for the southern region.

Robert Robeson, formerly a traffic representative for United Air Lines at Philadelphia, has been appointed executive assistant in the company's public relations department at Chicago.

Van Horn Hammack Lukens

Albert F. Tirrell, an Eastern Air Lines traffic representative in Boston since his release from the AAF last year, has been appointed EAL city manager in Baltimore. **Eugene W. Campbell** and **O. J. Ridenour,** recently of ATC, have rejoined Eastern as New York City sales representatives.

Edwin V. Smith, assistant chief agent for Eastern Air Lines at LaGuardia Airport, has been named Brooklyn sales representative with headquarters at the Airlines Terminal Bldg., New York City.



ORIGINAL—CONSIGNEE'S AIRBILL—NON-NEGOTIABLE—TENDER TO CONSIGNEE ON DELIVERY.

1

Received by UNITED AIR LINES, INC. The goods herein described are accepted for transportation in apparent good order (except as noted) and are subject to the terms, rates, and provisions of carrier's tariff in effect as of the date hereof. Said tariff rules, terms and provisions, copies of which are available for inspection by the parties to the contract, are hereby incorporated into and made part of this contract.

Consignee (Print) | Declared Value $ | CHARGES (CHECK ONE) | C. O. D. SERVICE

Consignee's Street Address | Dimensions * | ☐ COLLECT CONSIGNEE WILL PAY | ☐ CONSIGNOR'S C. O. D. (Check only if invoice value collectable on delivery) SHOW AMOUNT BELOW

Final Destination City Zone State | ☐ PREPAID CONSIGNOR WILL PAY

Destination Airport * | Number of Pieces | Dimensional Weight * | SERVICE REQUESTED (CHECK ONE) ☐ COMPLETE PICK-UP AND DELIVERY ☐ DELIVERY ONLY ☐ PICKUP ONLY ☐ AIRPORT TO AIRPORT ONLY

Date | Consignee's Number Not acceptable without Consignee's number. | Gross Weight of This Piece * | Entire Shpt. | Consignee's Order No.

Time * AM | IMPORTANT: Please Print or Write Clearly. This Airbill Will Be Photographed. *Consignor leave blank (carrier will complete)

Pickup and Commodity Description—Remarks | Rate* | Charges*

CONSIGNOR'S AFFIRMATION

I hereby declare that the contents and the actual value of this shipment have been truthfully and correctly declared and described and that such contents contain nothing dangerous to the aircraft, its passengers, crew or cargo. I acknowledge that this shipment is subject to the terms and conditions of tariff in effect on the date hereof, and that carrier will not pay over $50 in case of loss or 50 cents per pound, gross weight, for any shipment in excess of 100 pounds unless a greater value is declared and charges for such greater value paid.

Consignor

Permanent Post Office (or Street) Address of Consignor

City Zone State

Signed by

RECEIVED $..... To apply in prepayment of the charges on the property described hereon.

By Agent

RECEIVED	DELIVERED
At	At
Date	Date
By	By

Excess Value Transportation Charge* | Pickup Charge* | Delivery Charge* | Sub-Total * | Transportation Tax* | Consignor's C.O.D. | Consignee's C.O.D. Charge* | TOTAL CHARGES* $

UAC764 CG280092 Printed in U.S.A.

United's Airbill—This new airbill replaces the customary bill of lading previously used by United Air Lines, simplifying the handling of freight shipments. By use of the airbill, a shipment is ready for loading shortly after it reaches the airport, since only rating of the shipment and totaling of charges is necessary before takeoff.

No Time Delay in Ground Handling DC-4s, Delta Says

Delta Air Lines reported that since inauguration of service with DC-4s on March 6, it has encountered no delays in ground time at intermediate stations in handling the larger equipment. The carrier is using only one new type of ground equipment to expedite unloading.

A new type nose chute enables cargo handlers to unload baggage, cargo and mail from the two forward compartments in approximately the same time required to unload a DC-3.

Delta's original estimate of 15 minutes ground time for intermediate stations have proved sound, and no time has been lost in Atlanta, Savannah and Jacksonville, on the Chicago-Miami run with DC-4s.

Gasing the larger aircraft requires approximately three times as long as the DC-3, but refueling is done only at route terminals where three and four hour layovers are provided in schedules. Delta uses two 70-gallon per minute pumps for refueling.

Delta's DC-4s are worked at intermediate stations in approximately the same time as the DC-3, but with about twice the personnel. The forward and two belly compartments are used, but not the rear bin.

Flight pursers are charged with expediting all phases of handling the DC-4 at stations and in flight. He supervises all cargo and mail loading and unloading and is responsible for weights, balance and cabin temperatures.

Western Opens Broad Sales and Promotion Drive Stressing Tours

Western Air Lines will organize both a new tour department and an agency department as part of the most extensive sales and promotion program in the history of the airline. The overall expansion plans include enlargement of the traffic department by the addition of personnel, an enlarged advertising and publicity department and new, improved ticket offices.

Because it serves a great number of vacation areas, Western regards pleasure and vacation travel as having great potentialities and it is for this reason it will organize separate agency and tour departments.

Package and all-expense tours will be emphasized, and this is the prime reason for the organization of the tour department which will devote itself to the planning of vacation tours for the sales and promotion departments to sell.

Smith Assists Carmichael

R. O. Smith, superintendent of maintenance and overhaul of Pennsylvania-Central Airlines, has been appointed assistant to J. H. Carmichael, executive vice president. Succeeding him in the maintenance post is Harry D. Estey, formerly his assistant, while Paul Humphreys, supervisor of PCA's maintenance training program, becomes assistant superintendent.

Carriers Plan Akron Move

Four airlines now serving Akron through Akron Municipal Airport—American, Eastern, PCA and United—have declared their intention to move later this year to Akron-Canton Airport. Although the latter airport requires 15 minutes additional driving time from the city, it was decided that it will serve a larger area with more reliability of service for passengers, mail, express and freight. The operators believe the new airport also will better accommodate new equipment.

National and Union Sign

Unanimous ratification by members of Buccaneer Lodge No. 1881 International Association of Machinists of a labor contract negotiated with National Airlines, has been announced by Jesse C. McGlon, grand lodge representative, and G. T. Baker, president of the company. The agreement covers airline mechanics and stock and commissary employes, and provides for a 40-hour work week effective since Jan. 1, 1946.

New Services: Western Ready for Denver-LA DC-4 Runs

WESTERN AIR Lines was scheduled to inauguate service over its new Denver-Los Angeles route with new DC-4 equipment April 1. The event marks Western's 20th aniversary as a commercial air carrier.

Western claims to have surveyed the route 10 years ago, and was certificated for it by the CAB Nov. 14, 1944. Inauguration of service was delayed by exigencies of the war, shortages of four-engine equipment and establishment of the airway.

Western starts its new Denver service with one flight a day following delivery of a second new DC-4 from Douglas Aircraft Co. Schedules will be stepped up as additional equipment is received.

Other new services included:

- American Airlines' inauguration of transcontinental DC-4 schedules. Flights are routed from New York via Washington and Dallas, with schedules trimming five hours, 47 minutes off present DC-3 times.
- National Airlines doubled capacity of its non-stop service between New York and Miami by placing a second 46-passenger DC-4 in operation between the two points. Three similar aircraft are expected to be delivered shortly.
- Pennsylvania-Central Airlines was slated to place another 58-passenger DC-4 in operation between Milwaukee and Newark, N. J., April 1. Schedules will link Milwaukee with Newark, New York and Pittsburgh. PCA plans to add about three DC-4 schedules a month as equipment becomes available.
- United Air Lines got its DC-4 operations underway, with flights including one round trip between New York and Seattle-Tacoma, with stops at Cleveland, Chicago, Cheyenne, Boise and Portland; one round trip between Los Angeles and Seattle-Tacoma with stops at San Francisco, Oakland and Portland, and one Los Angeles-San Francisco round trip.
- Northwest Airlines inaugurated schedules into Newark, N. J., with two eastbound and two westbound flights daily. A ticket office is under construction in Newark.
- Colonial Airlines was making a bid for winter sports travel to the Laurentian Mountains above Montreal and the Gatineau Hills around Ottawa by carrying skiis free. A baggage allowance of 10 pounds is permitted for ski equipment.
- Delta Air Lines inaugurated DC-4 service between Ft. Worth and Atlanta, April 1, with an afternoon departure from Atlanta westbound and an evening departure from Ft. Worth eastbound. At the same time, DC-3 service was begun between Chicago and Charleston.

. . . with a Beech Controllable Propeller*. It's controllable throughout its entire range. With it you can easily change your prop setting from the cockpit in flight from cruising "high" through a wide intermediate range to take-off "low," to get the best possible performance under *any* conditions. Without it your airplane is like a car with only one gear.

With a Beech Controllable Propeller you get an economy bonus too. For by controlling pitch to allow the engine to turn at its best operating speed under all conditions, you get more miles per gallon of gas, less wear and tear, and more hours of flying between engine overhauls.

You'll find the Beech Controllable Propeller is light in weight, simple in design, rugged in construction and easy to install. It will give your airplane the extra performance you want.

Ask your nearest Beech distributor about the Beech Controllable Propeller or write us for descriptive literature.

*Licensed under Roby patents.

Beech Aircraft

QUALIFIED DISTRIBUTORS ARE INVITED TO WRITE US REGARDING THE BEECHCRAFT SALES AGENCY

CORPORATION
WICHITA, KANSAS, U. S. A.

Beechcraft Controllable Propellers have been licensed for the Stinson 10. The installation of a Model R002, blade length 72 inches, gives quicker take-off and climb, with decreased landing distance.

Single engine performance, not possible with fixed position propellers, is given to the Grumann Widgeon when Beechcraft Controllable Propellers are installed. General all-round performance is increased. Propeller blade length is 85 inches. The airplane is powered by two 175 horsepower Ranger engines.

Added performance is given to the Luscombe Silveraire with the installation of a Model R002 Beechcraft Controllable Propeller. The blade length is 72 inches, the engine a Continental.

AOA's Revenue Passengers Total 912 in Second Month

A total of 912 revenue passengers were carried by American Overseas Airlines in December, its second full month of operation, or 110% more than the 431 in November. Figures filed with the Civil Aeronautics Board show 5,037,824 available seat miles operated and 3,219,238 revenue passenger miles flown in December, compared with 2,663,128 and 1,556,024 the previous month. The revenue passenger load factor for the six C-54E aircraft improved from 58.4% during the first month of operation by AOA to 63.9% in December.

During October, American Export Airlines, operating two VS-44A and 6 C-54E aircraft, carried 400 revenue passengers, operated 1,586,624 available seat miles, 1,242,493 revenue passenger miles, and had revenue passenger load factor of 78.3%. Its scheduled miles flown of 85,472, compared with 124,830 for AOA in November, and 171,960 in December.

Transport Notes

DC-3 In Service—Panagra has increased its cargo-carrying capacity 38% by placing in operation a fifth recently converted DC-3 transport.

Color Movies—Panagra is producing a series of technicolor films featuring tourist facilities and accommodations in Latin America.

Model Exhibit—Shell Oil Co., Northwest Airlines, Northeast Airlines and PCA are cooperating in a model plane exhibit at the Airlines Terminal Annex Bldg., New York.

Opens Office—Air France, French national airline, has opened offices at 610 5th Ave., New York in anticipation of transatlantic service.

Passenger Miles Up—National Airlines reported an increase of 79% in passenger miles operated, compared with the same month a year ago.

Leases Quarters—Colonial Airlines has leased 3500 square feet of expanded quarters at 55 Broadway, New York, for its treasury department.

Air Express Up—Volume of shipments handled by Air Express Division, Railway Express Agency, for the domestic airlines increased 13.3% in January over the same month a year ago.

Takes More Space—TWA has leased 2700 square feet of additional office space in the Defense Bldg., Washington, D. C., to house the district traffic department and public information department.

Revenue Miles Up—Chicago & Southern Air Lines flew 83% more revenue passenger miles during the first two months of 1946 than for the same period in 1945.

Leases Office Space—Swedish Intercontinental Airlines (SILA) has leased ticket office space at 47 E. 46 St., New York.

Starts New Hangar—TWA has started construction of a $500,000 concrete hangar at the Los Angeles municipal airport. It will house TWA's operations offices, maintenance shops and an employes' cafeteria.

Traffic Up—Swedish Intercontinental Airlines reported 54 trips between New York and Stockholm during 1945.

Appoints Agency—KLM Royal Dutch airlines has appointed Charles W. Hoyt Co., as its advertising agency.

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Airlines Are Sharply Divided In Travel Credit Argument

Eight Carriers Join TWA In Opposing Present Plan

By DANIEL S. WENTZ II

CLAIMS THAT the present form of the Universal Air Travel Plan contains competitive inequalities which should be cured through the institution of a central clearing house to administer the plan conflicted with emphatic support of the present method of selling air transportation on credit as Civil Aeronautics Board Examiner Charles J. Frederick began a hearing last fortnight on an investigation of the travel plan ordered last year by the Board.

The major opponents of the present mechanism of the plan were a group of seven lines under the leadership of Transcontinental and Western Air, and Braniff Airways, acting singly. The TWA group proposed the central clearing house with which Braniff indicated substantial agreement. Colonial, Delta, Inland, Western, Chicago and Southern, Continental and Northwest are joined with TWA in opposing the present plan.

Favoring the present form of the plan were American, United and Eastern.

The hearing opened with the direct testimony and cross-examination of M. F. Redfern, Air Transport Association official and executive secretary of the Air Traffic Conference who appeared under the sponsorship of Public Counsel Albert Beisel to explain the present workings of the plan.

Following Redfern's appearance, a series of witnesses led by E. Lee Talman, TWA vice president, presented the views of the carriers opposing the present system. The plan, Talman said, has at least three distinct advantages. Its credit feature is a real service to volume users of air transportation; it is an admirable merchandising method for selling air travel; and it is a substantial aid in promotion and traffic development.

On the other hand, Talman emphasized, the plan as it has developed, now works to the substantial competitive advantage of American Airlines, which has the largest number of travel card accounts of any of the carriers authorized to issue travel cards (so-called issuing carriers). Talman said TWA could not afford the sales expenditures it would have to make to overtake American's present lead in the number of Travel Card accounts. He indicated that this was a competitive disadvantage, because card holders tended to travel wherever possible on the routes of the carrier holding their account.

Laigh C. Parker, Delta Air Lines' vice president-traffic, substantiated Talman's position in later testimony. He asserted that restrictions which tend to prevent subscribers from "switching" their travel plan accounts from one issuing carrier to another in effect conferred "grandfather" rights to a subscriber's travel on the carrier holding the account. In this way, he maintained, the largest volume users of air travel are already tied up by the larger issuing carriers, leaving little room for the smaller companies like Delta, which has itself become an issuing carrier only recently.

Sales control features of the present form of the plan were explained by Arthur F. Kelly, Western Air Lines' director of traffic sales. He told the examiner that the issuing carrier has complete knowledge of all travel performed under cards held by its subscribers which it uses to exert a constant sales effort to keep its subscribers from using competitive services. To break this sales control, Kelly said, Western was being forced to sell travel plan accounts to firms who already were subscribers with other issuing carriers, even though this practice was discouraged by the terms of the inter-carrier agreement which set up the air travel plan.

George O. Thornley, director of traffic contracts for TWA, and the spokesman for the eight-carrier committee backing the clearing house proposals, explained the mechanics of the clearing house which he said would eliminate the competitive advantages now held by the larger issuing carriers.

Although Braniff was not a member of the eight-carrier TWA group, Paul D. Niles, its traffic executive and director of research, supported the clearing house proposal in all except some small details which he felt could be worked out after the clearing house was set up.

American, Eastern and United, all of whom favor the present form of the travel plan, had not presented their cases as this issue of AMERICAN AVIATION went to press. It was understood, however, that in the event that the plan was disapproved by CAB unless a clearing house were established, American would propose to set up its own plan of selling air transportation on a credit card system.

Counsel Urges Denial Of MCA Acquisition

Branding American Airlines proposed acquisition of Mid-Continent Airlines "a misfusion not only hurtful to the two parties themselves but damaging also to the interests of the general community," Civil Aeronautics Board Public Counsel Louis W. Goodkind, in a brief to Examiners William F. Cusick and J. Earl Cox, urged last fortnight that the deal be disapproved. Goodkind declared that American and Mid-Continent were "functionally incompatible" systems, and their ultimate merger would "retard, if not forestall, the development of vital new transportation services" and would have a damaging effect on other carriers Approval of the deal would seriously hamper the Board in developing a sound air transportation system, he stated.

Among reasons advanced by Public Counsel as militating against the acquisition are the following:

1. A poorly integrated system would result from a merger because MCA has been predominantly a connecting carrier exchanging little business with American.

2. The merger would produce only a "handful" of new one carrier services, each more circuitous than existing connecting services.

3. Traffic flow studies show that the two systems could not be integrated to any "appreciable degree."

4. The possible merger of MCA with another airline to which it would be relatively complementary would be ruled out if American is permitted to acquire it.

5. Through services by equipment interchange would be less likely if American acquired Mid-Continent because the American management "has already developed a distaste for this device" for increasing through services.

6. The Board would be reluctant to award new routes to the combined AAL-MCA system because the "cumulative competitive effect of such accretions to an already dominant system could not be ignored."

7. The amount of Mid-Continent's connecting services would be substantially reduced because American would seek to change the character of Mid-Continent's traffic flow.

8. The acquisition would divert substantial revenues from other carriers, particularly Braniff and Delta.

9. Other airlines would be indirectly affected "as a result of the increasingly predominent competitive position which the acquisition would accord American."

10. The acquisition would do nothing to help Mid-Continent's plight as a "carrier which does not carry the people of its territory where they want to go."

Report Recommends Route Consolidations

A series of route consolidations giving American, TWA and United single route transcontinental services, and permitting Pennsylvania-Central to schedule a variety of new one-stop services between Washington and Chicago were recommended in a report issued by Civil Aeronautics Board Examiner Ralph L. Wiser. Wiser pointed out that the elimination of junction points through route consolidations was a necessary step to gear long-haul air travel to the type of operation four-engine, long range equipment is making possible. Widened non-stop possibilities, time and mileage savings increased economies in equipment operation and clerical economies were cited as supporting reasons for recommending approval of the four carriers' consolidation requests.

Specific recommendations include:

The consolidation of American's certificates for Routes 4, 18 and 23 into a single transcontinental route.

Consolidation of United's Routes 1, 62 and 66, with a restriction against Chicago-Washington and Chicago-Boston non-stops except on flights originating or terminating at Denver or points west.

Consolidation of TWA's Routes 2, 36, 37, 61, and 67, with a restriction prohibiting Chicago-Washington and Chicago-Boston non-stops. (Wiser suggested that final devision on non-stop service between Washington and Chicago by TWA be deferred until the Board's decision on TWA's application to consolidate its Routes 44 with Routes 2, 37, 61 and 67.)

Consolidation of PCA's Routes 14 and 32 with a restriction against Chicago-Washington non-stop service and prohibitions against non-stops between Chicago and Cleveland, Chicago and Akron, Chicago and Youngstown and Chicago and Pittsburgh except on flights originating or terminating at Washington or Norfolk.

Wiser proposed the restrictions against Washington-Chicago non-stop services because four such operations would result if the consolidations were all granted without restriction. The traffic between those points, he said, is not sufficient to warrant four such services.

CAB Proceedings

(A Summary of Applications Filed, Orders Issued, and Future Actions of the Civil Aeronautics Board.)

Orders:

4551—Denying the State of South Dakota permission to intervene in the North Central case. (Docket 415 et al.)

4552—Extending Pan American Airways' temporary New Orleans-Merida-Guatemala City certificate, due to expire Mar. 12, until the Board's decision in the Latin American case. (Docket 525 et al.)

4553—Permitting Continental Air Lines, Mid-Continent Airlines, and American Airlines to intervene in the Braniff-C&S consolidated route consolidation case. (Docket 1154 et al.)

4554—Authorizing United Air Lines to operate nonstop between Ogden, Utah, and Elko, Nev., on Route 1.

4555—Authorizing United Air Lines to operate nonstop between Salem, Ore., and San Francisco, on Route 11.

4556—Authorizing Pennsylvania-Central Airlines to operate non-stop between Baltimore, Md., and Akron, Ohio, on Route 14.

4557—Authorizing United Air Lines to operate nonstop between Chicago and Iowa City, Iowa, on Route 1.

4558—Permitting Wien Alaska Airlines, Inc., to intervene in the certificate proceeding on the application of Toussaint Air Service in Docket 1927.

4559—Authorizing Delta Air Lines to operate nonstop between Atlanta and Savannah, Ga., on Route 24.

4560—Denying All American Aviation, Inc.'s application for a temporary exemption order to permit it to serve Cincinnati, Ohio, as a temporary terminal for a route from Huntington, W. Va., pending resumption of service to Huntington by another certificated carrier. (Docket 2201).

4561—Permitting the cities of Columbus, Ga., and Tupelo, Miss., and Muscogee County, Ga., to intervene in the Kansas City-Memphis-Florida case. (Docket 1051 et al.)

4562—Notifying Western Air Lines that national defense considerations no longer require delay in inaugurating service on Route 68 between Los Angeles and Denver via Las Vegas, Nev., and Grand Junction, Colo. (Docket 519 et al.)

4563—Dismissing American Overseas Airlines' application in Docket 2165 for a temporary exemption order permitting it to serve Frankfurt a/M Germany, after that point was included on AOA's routes by a modification of its approved service plan.

4564—Dismissing Pan American Airway's petitions for permission to intervene in the American Overseas Airlines Frankfurt a/M service cases. (Dockets 2165 and 2211).

4565—Permitting United Air Lines to intervene in the Arizona Airways-TWA Route 38 purchase case. (Docket 2005).

4576—Permitting the Port of New York Authority and the Orleans Airport Commission to intervene in the foreign air carrier permit application case of Lineas Aereas TACA de Colombia, S. A., Docket 1824.

4577—Rescinding service suspension orders dating from May, 1942, to permit American Airlines to resume service to and from Utica, Albany, Springfield and Boston on Route 21 (now part of Route 7); and service between Albany and New York on Route 23 (now part of Route 7).

4578—Permitting United Air Lines to operate nonstop between Rock Springs, Wyo., and Salt Lake City, Utah, on Route 1.

4579—Dismissing from the Southeastern States Case (Docket 501 et al.) the applications of Angeline Harris, Docket 898, and Mountain Airways Co., Docket 1122, at the applicants' requests.

4583—Permitting American Airlines, Braniff Airways, Chicago and Southern, National Airlines, Northwest Airlines, Delta Air Lines, Eastern Air Lines, Pennsylvania-Central, Transcontinental & Western Air, United Air Lines, Western Air Lines, and the Orleans Airport Commission of the City of New Orleans to intervene in the Pan American Airways U. S. domestic routes case (Docket 1803); and denying motions of Braniff, Delta and PCA proposing severance of portions of PAA's application or the postponement of further action in the proceeding.

4584—Authorizing Pan American Airways to intervene in the foreign air carrier permit proceeding on the aplication of Lineas Aereas TACA de Colombia, S. A., in Docket 1824.

4586—Denying a petition of Norseman Air Transport for reconsideration of a previous Board ruling which, in turn, had denied a petition of Norseman for rehearing in the New England case. (Docket 399 et al.)

4587—Authorizing Eastern Air Lines to operate nonstop between Cleveland and Greensboro-High Point, N. C.; Winston-Salem and Savannah; and between Winston-Salem and Cleveland on Route 6.

4588—Permitting the City of Valdosta, Ga., to intervene in the Kansas City-Memphis-Florida case. (Docket 1051 et al.)

4589—Approving an agreement between Northeast Airlines and United Air Lines relating to the sublease of space. (Agreement C.A.B No. 409).

4590—Ordering Aviation Corp., Consolidated-Vultee Aircraft Corp. and American Airlines to show cause why the Board should not prohibit the consummation of American's contract for the purchase of Convair 240s prior to AVCO's compliance with a CAB order to divest itself of control of American Airlines. (Docket 2052).

4591—Permitting Eastern Air Lines and Pan American Airways to intervene in the foreign air carrier permit proceeding on the application of TACA, S. A., in Docket 774.

4592—Authorizing Pan American Airways to serve New Orleans through the use of the Kenner-Moisant Air Field.

4593—Authorizing Pan American Airways to serve Los Angeles through the use of Lockheed Air Terminal, Burbank, Calif.

4595—Releasing from confidential status Part 2 of the Board's Statement of Tentative Findings and Conclusions issued with its Show Cause Order Serial 3705 (May 25, 1945) in Pan-American Airways' Latin American division mail rate case (Docket 1593); and denying PAA's motion to retain other documents in the proceeding in confidential status.

4596—Dismissing the application of Central U. S. Airlines, Docket 1695, at the applicant's request.

4597—Dismissing the application of North Coast Airlines, Inc., Docket 2214, at the applicant's request.

4601—Ordering Eastern Air Lines to preserve until further order all records, accounts and memoranda relating to its flights 18 and 22 of Jan. 20, 1946.

4603—Ordering withheld from public disclosure all documents relating to the Pan American Airways-Panair do Brasil contract investigation proceeding (Docket 2032), at the request of Panair do Brasil.

Applications:

Braniff Airways, for a 1219-mile route between Oklahoma City and Los Angeles via Lubbock, Tex., Roswell, N. M., Phoenix, Ariz., and San Diego, Calif.; and for a 1244-mile route between Dallas and Los Angeles via Fort Worth and the same intermediate points. (Docket 2234).

Interstate Commercial Flyers, Inc., University Airport, Box 524, Davis, Calif., for a certificate authorizing scheduled mail, passenger and property service over a 645-mile circle route out of Davis, Calif. (Docket 2235).

New England Central Airways System, Inc., 299 Beacon Street, Boston, Mass., for a certificate authorizing scheduled mail, passenger and property service over a 409-mile route between Boston and Washington. (Docket 2232).

Pan American Airways for an exemption order to authorize New York-Lisbon flights over the North Atlantic Route; to permit service to Dakar, Senegal; and to authorize service between New York and Leopoldville, Belgian Congo, via the North Atlantic, Lisbon, Dakar and Monrovia, Liberia. (Docket 2236).

Seldovia Air Service (Erroll F. Herr and Richard William Miller, d.b.a.) Seldovia, Alaska, for a permanent or temporary certificate or an exemption order authorizing non-scheduled passenger and property service within a 250-mile radius of Seldovia; and passenger and mail service between Seldovia and Homer, Alaska. (Docket 2231).

Sun Transporters, Inc., Empire State Building, New York, for a permanent or temporary certificate authorizing the applicant to operate as a freight forwarder from the metropolitan areas of New York, Chicago and Los Angeles. (Docket 2239).

Texas Air Lines (Cyral P. Erwin, d.b.a.) 411 West Cowan Drive, Houston 7, Texas, for a permanent or temporary certificate authorizing scheduled mail, passenger and property service over a series of feeder routes linking Houston and Brownsville, Laredo, Fort Worth, Texarkana, Amarillo, Galveston, El Paso, and Orange, Texas, all via various intermediate points. (Docket 2240).

Transcontinental & Western Air for an exemption order to authorize service between TWA's U. S. international route co-terminals and Lisbon and points beyond via Newfoundland and Eire. (Docket 2238).

U. S. Airlines, Inc., First National Bank Building, St. Petersburg, Fla., for a certificate authorizing property service by conventional aircraft over a route between Boston and New Orleans via Providence, R. I., New York, Philadelphia, Wilmington, Del., Baltimore, Washington, Richmond and Norfolk, Va., Raleigh, N. C., Columbia and Charleston, S. C., Atlanta, Ga., and Birmingham, Ala. (Docket 2233).

Calendar:

Apr. 1—Briefs due in the Mississippi Valley case. (Docket 548 et al.) Postponed from March 15.

Apr. 1—Briefs due in American Airlines' non-stop case. (Docket 2136).

Apr. 2—Prehearing conference on Northwest Airlines' application for consolidation of its Routes 3 and 69. (Docket 2018). 10 a. m., Room 5132, Commerce Building.

Apr. 8—Hearing in the TWA-AAL-UAL consolidated-route consolidation case. (Docket 2142 et al.) Postponed from March 25.

Apr. 15—Exhibits due on Pan American Airways' U. S. domestic routes case. (Docket 1803).

Apr. 29—Hearing in the PCA-Northeast merger case. (Docket 2168). Tentative.

Apr. 30—Hearing in the Board's investigation of maximum hours of duty for airline pilots. (Docket 2241). 9:30 a. m., Conference Room "C," Departmental Auditorium.

May 15—Rebuttal exhibits due in Pan American Airways' U. S. domestic routes case. (Docket 1803).

May 15—Briefs due in the Middle Atlantic Area case. (Docket 674 et al.)

May 20—Date for exchange of exhibits in the Boston-New York-Atlanta-New Orleans case. (Docket 730 et al.)

May 29—Rebuttal exhibits due in the Boston-New York-Atlanta-New Orleans case. (Docket 730 et al.)

June 1—Date for exchange of exhibits in the Arizona-New Mexico Case. (Docket 968 et al.)

June 3—Hearing on Pan American Airways' application for U. S. domestic routes. (Docket 1803).

June 10—Hearing in the Boston-New York-Atlanta-New Orleans case. (Docket 730 et al.) Examiners Ralph L. Wiser and Lawrence J. Kosters.

June 21—Rebuttal exhibits due in the Arizona-New Mexico case. (Docket 968 et al.)

July 8—Hearing in the Arizona-New Mexico case. (Docket 968 et al.) Tentative.

Pilot Error Probable Cause Of 2 Accidents, CAB Says

Pilot error figured prominently as the probable cause of two airline accidents, according to formal reports made public by the Civil Aeronautics Board. In commenting on an accident in which a Pennsylvania-Central Airlines DC-3 crashed into Cheat Mountain near Morgantown, W. Va., on April 14, 1945, the Board said the pilot, after encountering instrument weather conditions, had failed to climb promptly to the prescribed minimum altitude for the terrain and that at the time of the crash "was where he had no right to be under the existing weather conditions and applicable safety regulations."

The Board laid the cause of the crash of a Pan American Airway's Sikorsky S-43 amphibian at Fort de France, Martinique, August 3, 1945, to the pilot's attempt to land the ship in "conditions of water surface not suitable for landing a flying boat." The report also criticized PAA for "laxity . . . in effectuating compliance with safe and accepted standard practices in conducting an air carrier operation."

Policy on Civic Groups Changed

Under a recent alteration in the Civil Aeronautics Board's rules of practice chambers of commerce and similar civic groups will be permitted to intervene in new route and other formal economic proceedings if the intervener is able to demonstrate a direct interest which cannot be adequately protected by other parties, and if it is able to show that its intervention will not unduly broaden the issues in the case.

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Fairchild Discloses Design for 'Flying Mailcar'

Modified Packet Offered As Future All-Mail Plane

By Leonard Eiserer

DESIGNS FOR a "flying mailcar," featuring novel facilities for sorting and storing mail in flight, have been disclosed by Fairchild Aircraft Division of Fairchild Engine and Airplane Corp., as that company's answer to a prospective need for an all-mail plane.

Following a recent inspection of the Fairchild Packet cargo plane by Post Office and air transport officials, Richard S. Boutelle, vice president and general manager of Fairchild Aircraft, indicated that the unique mail-handling facilities of the 200 mph. flying mailcar, along with the plane's great capacity, long range, and ease of loading, would make possible far faster air mail service between major American cities. A modification of the Army's "flying boxcar" (C-82), now in quantity production at Hagerstown, Md., it is seen by company officials as revolutionizing air mail service as dramatically as the railroad mailcar outstripped the pony express.

"We have adapted the interior of the Packet's squared fuselage to the needs of the Post Office Department, installing such postal equipment as a sorting table, letter rack, chutes, locked drawers for registered air mail, and bag racks," Boutelle explained. "The equipment, lighter than that used in railroad mailcars, is more compact and more efficient."

The Packet will be able to handle mail loads up to six tons on a 500-mile non-stop flight, he added, and more than four tons on a 1,200-mile non-stop flight, such as between New York and Jacksonville. The plane's cargo hold, 38 feet long, is shaped like a railroad boxcar and has approximately 93% as much cubic capacity. Huge double doors in the rear split open like a clamshell to make a loading door, at truck-bed height, more than eight feet square.

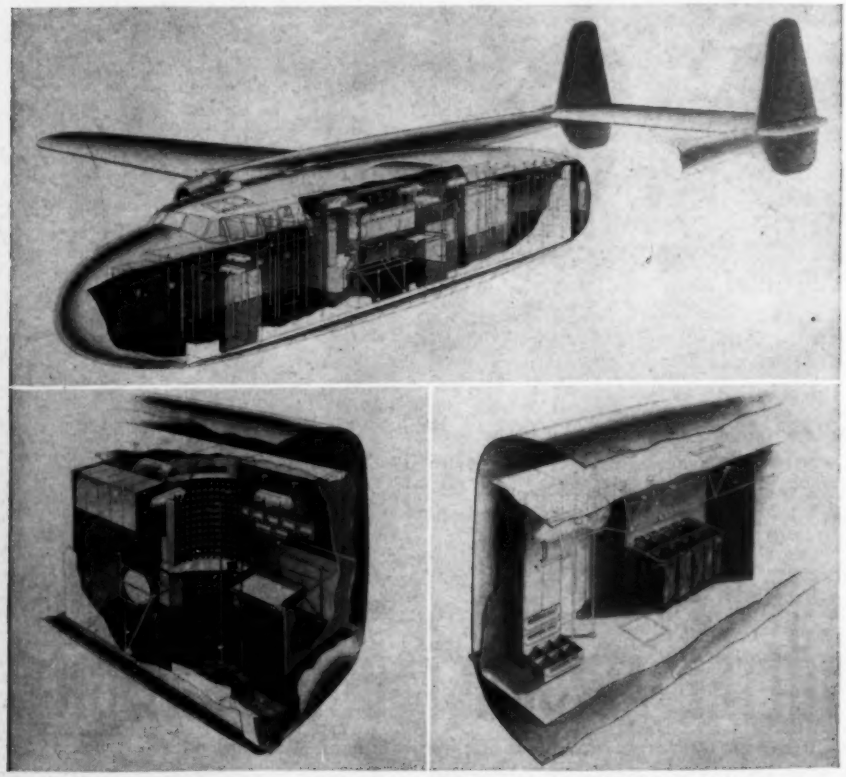
Good possibilities for the air mail Packet are seen by Post Office officials in handling the increased volume of air mail anticipated with the five-cent rate proposed by the department.

Discussing the prospect of the airlines running all-mail planes at certain times of day when the volume is especially heavy, Robert S. Burgess, superintendent of air mail service for the Post Office Department, commented that "the Packet looks like an ideal plane for this job. It's large enough, fast enough, and quick to load. There's plenty of room inside for one, two, or even three clerks to sort the mail enroute."

"One of our greatest difficulties," he explained, "is to move the air mail as quickly as possible during peak collection periods—at the close of the business day, for example. Today, time is lost because the peak load of air mail is distributed among several planes leaving hours apart. If the airlines operated a few all-mail planes, schedules could be set to correspond with these peak periods in mail traffic."

Burgess estimated that only about one-quarter of the mail shipped would require sorting, the rest being "storage mail" in bags addressed to specific points. Effective use of the Packet in air parcel post, which has been under discussion for some time, was also seen by Burgess.

Plans drawn up by Fairchild engineers emphasize convenience and efficiency in the working section of the air mail Packet, including fluorescent lights for pleasant working conditions, an oval letter case with every pigeonhole equally accessible and an intercom phone.



These cutaway drawings show interior arrangements in the Fairchild 'Flying Mailcar'.

GCA to Be Put Under 3-Months CAA Test At Indianapolis Base

The technical development section and air traffic control division of the Civil Aeronautics Administration have been given the green light by Administrator T. P. Wright to begin an extensive three months test of GCA (Ground Controlled Approach) at the CAA development station in Indianapolis, according to Dave Callahan of Gilfillan Bros. which developed and manufactured GCA for the armed services.

The program, which will get underway immediately, will include comparative test runs on GCA and other instrument landing aids by 100 military pilots taken to Indianapolis by Lt. Col. H. B. Sproul of the Army Air Forces. At the same time Milton Arnold and John Groves of the Air Transport Association are selecting a group of airline pilots to determine the ease with which the average commercial aircraft can be brought down on various blind landing systems; and the Aircraft Owners & Pilots Association is sending out a group of its members to determine the same thing from the standpoint of the private flyer.

The private flying phase of the program will seek further to ascertain the minimum instruments required for a private pilot to fly in soup and get down in one piece in an emergency.

In addition to evaluating GCA as an instrument landing system, CAA technicians will conduct exhaustive tests to determine the technical and operational characteristics of GCA as an air traffic control aid.

NAA Unveils 4-Place 'Navion', All-Metal, 185-hp. Lightplane

Company Ends Speculation As to Its Post-War Plans

By FRED S. HUNTER

NORTH AMERICAN Aviation ended speculation as to its lightplane plans with an official April 1 announcement that the company is entering the personal airplane field with the "Navion," an all-metal, four-passenger airplane designed for outstanding performance and versatility.

Builder of the P-51 Mustang, B-25 Mitchell and AT-6 Texan, North American Aviation is the first major West Coast aircraft manufacturer to apply its engineering and production experience to develop and produce a light plane for the postwar civilian pilot.

The Navion is a low wing, side-by-side dual control airplane featuring unusual flight characteristics with ease, safety and economiy of operation to meet the combined demands of pleasure, sport or business flying.

Powered by an air-cooled Continental 185-horsepower engine, the Navion has an estimated cruising speed of about 150 mph, a top speed of about 160 mph, and an estimated maximum range of 700 miles. Actual performance figures will await certification by CAA, which procedure is under way.

The Navion features a new and specially-designed wing which is said to give the plane unusual aileron control at low speeds when approaching the stall. The root sections of the wing are the first to stall, eliminating tendency of the airplane to roll, thus maintaining good aileron control up to and through the stall. An up-in-the-middle curvature to the wing tip section further reduces any tendency for the tip sections of the wing to stall first.

The Navion also features a power retractable tricycle landing gear with a 20-degree steerable nose wheel for easy handling on the ground. The tricycle gear and full vision canopy combine to give the pilot ease of handling for taxiing, takeoffs and landings.

The ship carries four passengers, weighing a total of 680 pounds and the ventilated enclosure under the sliding canopy is a roomy 43 inches wide. The individual front seats are adjustable, and the back seat may be removed to accommodate 435 pounds of luggage in 46 cubic feet of space. Access to the luggage compartment back of the rear seat is from the cabin interior, which will carry 80 pounds of luggage. The luggage compartment is covered when the canopy is closed, providing a convenient shelf for hats and small parcels.

The passenger enclosure is the widest part of the semi-monocoque fuselage, which is constructed as a single unit. From the canopy, the fuselage sweeps into the tail group with a dorsal fin fairing into the vertical stabilizer providing greater flight stability.

The elevator and horizontal stabilizer assemblies are interchangeable, left and right, and the rudder has a trim tab adjustable on the ground. All hinge points contain ball bearings, and all surfaces can be easily removed.

The moncoque engine mount is structurally part of the fuselage, eliminating the conventional steel tubular design. Any part of the six-cylinder engine can be easily reached for inspection or repair.

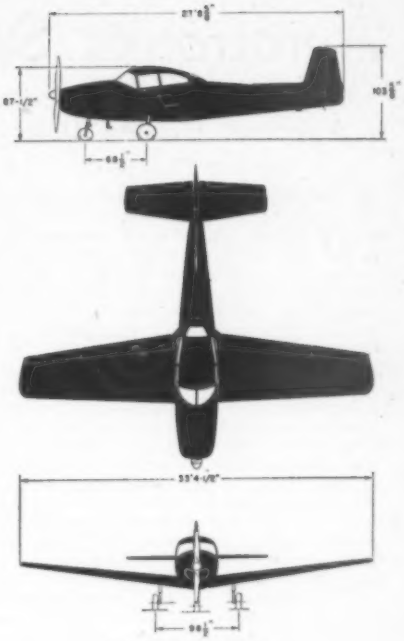
The Standard Model is equipped with a Delco-Remy electric starter, navigation lights, flight and engine instruments for contact flying, and variable pitch propeller.

The Navion's surface control system is of the pulley and cable type, with dual wheel and pedal controls for the pilot and co-pilot. The co-pilot's controls can be easily and quickly removed so the right front seat can accommodate a non-pilot passenger.

The Navion has a wing span of 33 feet, five inches; length of 27 feet; height of nine feet, and weighs 1,551 pounds empty. Carrying a useful load of 1,019 pounds, the plane will fly at a gross weight of 2,570 pounds. Besides the passenger and luggage weight, the useful load includes 10 quarts of oil and 40 gallons of gasoline in the two 20-gallon pressed steel wing tanks.

Fully loaded, the Navion will take off in a 695-foot ground run and climb at approximately 830 feet per minute. The stalling speed is approximately 53 miles an hour, and the plane's service ceiling is approximately 15,600 feet.

North American's New 'Navion'



Three-view of 'Navion'

Arnold Says Public Oversold On Possibilities of Radar

Milton Arnold, vice president—operations of the Air Transport Association, told a press conference last fortnight that the public has been oversold on the immediate possibilities of radar use by the commercial airlines.

He said present radar still is unable to give a clear-cut picture than can be easily and quickly identified, and that potential confusion resulting from aircraft of many types and speeds converging on an airport must be reduced to make it effective for airway traffic control.

Arnold expressed belief that radar and television hold the solution to airway traffic control, but that much remains to be done before they are out of the "stage of the artist" and have practical application.

Standard Code Being Formed

The Air Transport Association Code subcommittee was to meet with CAA officials April 1 to set up a single standard, three-letter code list for all domestic and foreign cities required under CAA and airline operational, communications and traffic procedures. At present, there is one code for operations and communications, another for traffic purposes.

PCA's DC-4s Wired for Sound

Installation of hostess-to-passenger public address systems in its DC-4s will facilitate loading and unloading of passengers, according to Pennsylvania-Central Airlines. Three speaker outlets have been installed in the DC-4 cabin—front, center and rear—with the microphone connection at the buffet location. The PA system also may be used in flight to call attention to points of interest on the ground.

Aerotronics System is Based on Search Radar

Raytheon Entry Combines Airborne, Ground Units

By SYDNEY CARTER

AIRBORNE SEARCH radar, ground surveillance radar and airborne and ground transponder beacons are combined in the Aerotronics air navigation, traffic control and instrument landing system proposed as an immediate-intermediate solution to the all-weather flying problem by the communications division of Raytheon Manufacturing Co.

Generally speaking the system divides up into airport monitor units, ground transponders for navigation and collision warning, a special arrangement of ground transponders for instrument landing and the airborne search radar. Also under consideration is an additional ground search radar unit to be used in connection with airborne transponders for automatic airway position reporting, with the airborne units serving additionally as an aircraft-to-aircraft collision warning device, although this may be eliminated in favor of a radio position reporting device similar in principle to the optical interferometer.

The basic philosophy of the Aerotronics system, according to Raytheon, is to provide the pilot with "eyes" rather than dealing with secondary methods as in existing systems, and to accomplish this with immediately available war developed equipment.

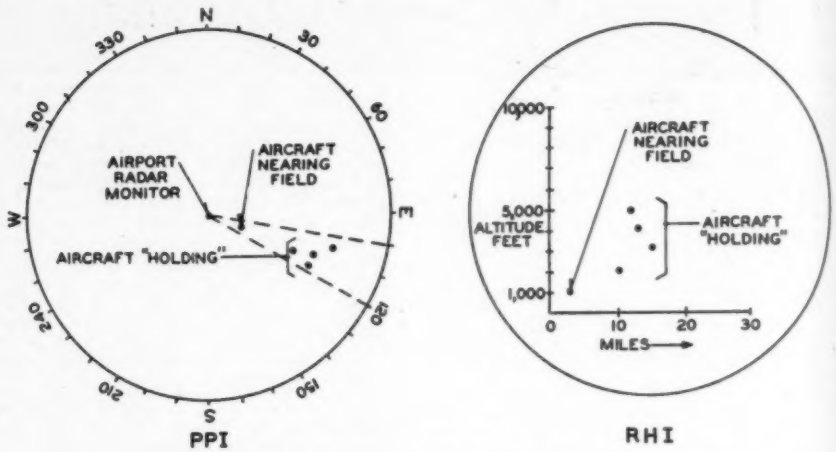
The airport monitor unit consists of two search radars with a 30-mile range, one having a 360-degree scan antenna, and the other a 10-20 degree sector vertical scan. Both units will be equipped with MTI (Moving Target Indication) which can be cut in and out at will, and which when in effect displays only those targets on the scope which are moving in excess of five mph.

Third of a Series

This is the third of a series of articles dealing with all-weather proposals. The next installment will appear in a forthcoming issue of AMERICAN AVIATION.

Two 12-in. cathode tube displays would be located in the control tower, the left hand display being a normal 360-degree PPI presentation giving range and bearing and ultimately, it is expected, altitude; and the right hand display giving range and elevation information for any 10-20 degree sector as selected by the operator, thus affording him what Raytheon terms "stack vigil." Altitude information on the PPI scope will be presented by means of tails or arms radiating from the bright spots indicating aircraft, with the azimuth or clock dial position of the arm indicating altitude in 1,000-ft. increments.

The Raytheon proposal calls for utilizing design features in keeping with the latest radar developments including Thyratron type modulator, thermister bridge for monitoring transmitter output, directional coupler in each waveguide for making routine spectrum analysis checks, facilities for feeding remote PPI's in addition to tower equipment, etc. Airport radar power is calculated at one-half mega-watt with a scanning rate of 12 rpm on the 360-degree antenna, and a vertical sector scanning rate in accordance with the definition required. An accuracy of one-half degree is estimated. Search beam width is 45 degrees vertical and one degree or less horizontal, while the sector beam width is less than a one degree pencil beam. Ground equipment weights are listed as 300 lbs. for the antennae, 1,000 lbs. for the transmitter receiver units, 500 lbs. for the driver units; 800 lbs. for the modulator and 350 lbs. for the tower console. Raytheon points out that the latter unit is the only one that would have to be located in the tower proper, although it suggests mounting the antennae on the tower roof.



Plan position indicator and range height indicator of tower console.

Under its proposal, according to Raytheon, the controller would have a CAVU picture of all aircraft stacked and in the traffic pattern regardless of weather conditions. Handling around the field would be speeded up and communications cut to a minimum in that pilots would not have to report altitude arrival and departure times, this information being presented visually by the radar monitor. Even in perfect weather, the company believes the system would offer advantages in that it would enable the controller to see aircraft in action over distant holding and check points.

The instrument landing and navigational aspects of the Aerotronics system are based on the use of ground transponders and the airborne search radar. For the former there are two transponders along side the landing end of each runway and one transponder at the center of the far end of the runway. A switch in the control tower enables the operator to activate only that group of transponders corresponding to the proper runway and direction for the current wind condition. Approaching the airport, the pilot first sees the group of three dots in his PPI scope, indicating the airport. As he gets closer (within five miles) he switches his radar to a shorter range and is given range and bearing to the landing strip as well as the strip landing direction. To land, the pilot turns the range switch to two miles, and lines up the vertical center line of the scope with the dot indicating the transponder at the far end of the runway. His scope now gives him all the information needed for landing—direction (including crab angle), distance, runway width and runway length. The only data not supplied is altitude, and for this Raytheon recommends use of a radio altimeter.

A similar beacon pattern presented in the PPI scope is used for navigation, the only difference being that for this purpose the beacons are coded so that the pilot can identify them from a code book or map just as he now does light beacons. As an additional advantage, Raytheon further proposes that a light grid be etched in the filter mounted across the face of the PPI which can be used to calculate both drift and ground speed.

Not only does its proposal, Raytheon states, offer a simple and reliable means for navigation and landing, but by using search radar rather than IFF type equipment in combination with beacons, it offers the added advantages of collision warning against both equipped and unequipped aircraft and ground obstructions, weather and turbulence detection, and some terrain and navigational information even where no beacons have been installed.

Weight of the airborne radar equipment would vary between 75 and 150 lbs. depending on the location of the antenna and the radiated pattern. In its current proposal Raytheon suggests a radar with a five-inch scope mounted on the instrument panel with the blind flight group, and a 180-degree forward scanning antenna. A special provision is made however to move the reference point from the center to the bottom of the scope when the radar is turned to two-mile range for landing. Weight of the ground transponder units is 20 lbs.

Under its radar proposal for automatic position reporting, the aircraft would be equipped additionally with a coded transmitter which would actuate air search radars placed at approximately 60-mi. intervals along the runway. The PPI presentations derived from these radars then would be transmitted via microwave relay links to airway traffic control centers.

The second or radio proposal would, in effect, set up standing radio waves in space, and include a counter mechanism at the control center to record automatically the range and altitude of each aircraft flying that airway.

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Bradley Field Recommended For Springfield-Hartford

17 Cities Borrow Funds For Airport Development

FUTURE SPRINGFIELD, Inc., a non-profit, fact-finding organization devoted to the development of the Massachusetts city, has recommended Bradley Field at Windsor Locks, Conn., as a joint commercial airport for the Springfield-Hartford population area.

The $15,000,000 airport, 12 miles from Springfield, is available to the city at no cost, Future Springfield reported, pointing out that "to develop a commercial airport at either the present Springfield airport or Bowles Field in competition with Bradley Field is unwarranted."

The Springfield organization said that the location of Bradley Field in Connecticut was of no important consideration, since its accessibility and central location within the population area were determining factors.

Future Springfield recommended development of the present Springfield airport into a Class II field for use by non-scheduled and feeder-line operators.

Meantime, Bureau of Community Facilities of the Federal Works Agency announced that 17 U. S. cities have borrowed funds to prepare plans for airport construction. A total of $141,686 was made available by FWA and total airport construction contemplated totals $5,188,164.

Another 27 cities have applications on file for loans totaling $425,762 to help plan airport construction totaling $31,282,000. The so-called loans require CAA approval.

Other airport developments during the fortnight included:

Philadelphia contracted with Airways Engineering Consultants, Inc., of Washington, D. C., for production of a master airport plan and supervision of construction of an airport to care for the city's growing air services. Reconstruction and enlargement of the city's Southwest municipal airport is planned initially.

American Overseas Airlines and TWA settled a 2½-year controversy with the City of New York over rental payments for space at the Marine Terminal at LaGuardia Field. The agreement calls for payment of $23,834 in rent dating back to April, 1943, and future payments at annual rental rate of $8,267.

Coastalair Corp., a $500,000 corporation organized by interests of Virginia Beach and Princess Anne County, Va., purchased a 175-acre tract on the main boulevard leading to Virginia Beach as the site for an "all-service" flying field. Coastalair also will operate a newly constructed seaplane base at Virginia Beach.

The California Reconstruction and Reemployment Commission will undertake a survey to complete a master airport plan for the state. A special appropriation for the work was turned down by the last session of the legislature, but the commission will use other unallocated funds for the work.

Chester Moulton, recently appointed Idaho aeronautics director, said stress would be laid on development of small airports and practical landing facilities for use by non-scheduled operators and personal fliers.

Chicago's new Douglas Airport can be put into operations for freight carrying aircraft within 60 days, **Oscar Hewitt**, commissioner of public works, reported. Runways are ready for use.

Plans are going forward at Chicago for establishment of an "Airport Express" to operate between Douglas Airport and Northwestern Station. The fast diesel train would run on 30-minute schedules.

Cook County (Ill.) voters will ballot April 9 to approve or disapprove establishment of an airport west of Evanston. Under the Illinois airport authority act, a commission will be appointed to study creation of the airport in the event of a favorable vote.

Siskiyou County (Calif.) supervisors have authorized Bert Hawkins of Mount Shasta to operate Mott Air Field for non-scheduled, charter, taxi and training operations. The field is situated between Mount Shasta and Dunsmuir, Calif.

A new administration and terminal building is proposed for Fairfax Municipal Airport, Kansas City, Kans. Commercial activities have been held up by negotiations looking toward termination of a long-term lease with the War Department.

Commercial operators in the Seattle area are protesting Army delays in releasing Boeing field for commercial use. The space now occupied by the Army is to be used by Pacific Air-Motive Corp., which plans erection of a $250,000 hangar, shop and office building.

Stark County (Ohio) will issue $71,000 in bonds to finance construction of a terminal building and other facilities at the new Canton-Akron Airport. Summit County's share for building and other operating features is $96,000.

Air Marking Posters

A poster to familiarize pilots with standard air markers so they will derive the utmost benefit from them has been printed by the CAA and distributed to each airport manager and chamber of commerce throughout the U. S.

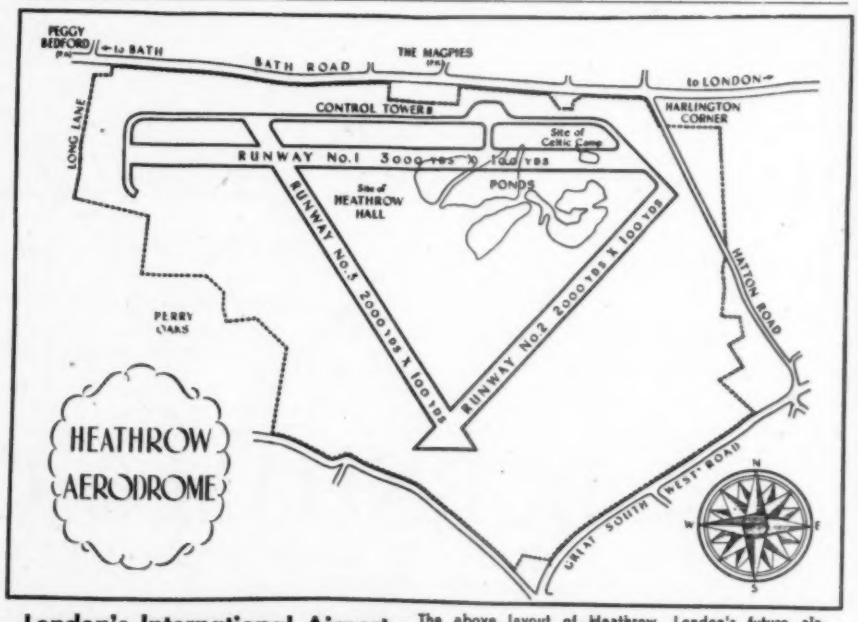
Indiana Would Avoid Rackets Under GI Bill

The Aeronautics Commission of Indiana has instituted a system of curbs and regulations to keep within proper bounds the flight training of veterans under the G. I. Bill of Rights act, according to Clarence F. Cornish, director.

Minimum requirements for operators who proposed to participate in the program were drafted on February 11, according to the commission's office manager, John F. Burk, and later were discussed with large and small operators throughout the state. The Civil Aeronautics Administration cooperated in drafting the requirements. Subsequently the requirements were mailed to all parties concerned and a further meeting was held to establish rates for the pilot training courses.

The rates are based upon previous operational experience in the CPT and WTS flight training programs with consideration of operation conditions.

Indiana airport operators who propose to participate in the pilot training of veterans must first be approved for such by an aviation panel of the State Department of Veterans' Affairs and the State Department of Public Instruction. In order to acquire this approval, the applicant must meet the established minimum requirements for the particular flight training program he proposes to give. Following review of the operator's application for approval, a representative of the Indiana Aeronautics Department physically inspects the operator's facilities to ascertain compliance with the minimum requirements. To date, four flight schools have been approved for pilot training of veterans while applications of 23 additional operators are now being reviewed for approval.



London's International Airport—The above layout of Heathrow, London's future airport for world trunk routes, shows three runways which should be available at completion of construction work, some two years from now. The project, 14 miles from central London, was intended originally for military purposes. Observers in London doubt that Heathrow will be able to handle the volume of traffic which will develop in coming years. Internal and European services are to be served by Croydon and Northolt aerodromes.

New Equipment

Additions to Kollsman Line

Recently announced Kollsman equipment for commercial aircraft includes: (1) an automatic regulator for controlling cabin pressure and temperature at all altitudes and under all outside air conditions, including passenger safety and comfort provisions during abrupt changes in altitude. Lockheed Constellations used by TWA are equipped with this regulator; (2) large passenger-view airspeed and altitude indicators for installation in transport cabins; (3) a True Air Speed Indicator which compensates altitude, temperature and indicated air speed to give an instant dial indication of a plane's exact speed; (4) a 'maximum allowable air speed' indicator, primarily for use in military and experimental aircraft, which compensates for altitude and aircraft characteristics to warn the pilot that he is approaching a speed beyond the normal limits of the aircraft.

'Unit-power' Ignition System

Flight tests are being made with a single-unit battery ignition system in which the coil, condenser and distributor are combined in a 2½-pound plastic cased assembly. A descriptive folder is available from the manufacturer, LaPointe-Plascomold Corp., Unionville, Conn.

Automatic Propeller Synchronizers

Hamilton Standard Propellers Division of United Aircraft Corp. reports that it is making the first commercial installation of automatic propeller synchronizers on Chicago & Southern Air Lines' new DC-4s. The war-developed device enables a pilot to control propeller rpm on a single engine while the synchronizer keeps the other three engines in time with the 'master' engine. Safety features include an alternate master engine, individual propeller governor control for constant speed performance whether or not the synchronizer is in use, and a device which prevents any controlled propeller from slipping more than three per cent off its setting in case of sudden malfunctioning of the master engine. The complete synchronizing installation is said to add less than 10 pounds to the weight of a DC-4.

Air-Cooled Generating Set

Bardco Manufacturing & Sales Co., Los Angeles, is producing a portable, compact air-cooled generating set which was developed in cooperation with the Air Technical Service Command, and has been used to ground test B-29s at advanced bases. Designated Model GD15C24, it delivers 15 kw, 28½ v and 528 amp. DC from two AAF type R-1 aircraft generators driven by a 4-cyl., air-cooled 68 hp Continental aircraft engine through a step-up gear train. The unit is completely enclosed in a 24ST aluminum alloy housing and mounted on a three wheel dolly. Overall dimensions are: height exclusive of dolly 44 in., length 72 in. and width 37 in.

Continental Controllable Propeller

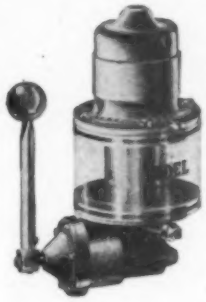
Continental Aviation & Engineering Corp., subsidiary of Continental Motors Corp. in Muskegon, Mich., is now in production with a hydraulic controllable pitch propeller for engines up to 200 horsepower. Production is now confined to an 85 horsepower size, with larger sizes scheduled for later in the year. Double acting hydraulic mechanism controlled from the instrument panel shifts blades into either high or low pitch. Continental is using the name "Skypower" for the new propeller.

Small Electrical Gyros

Two new type small electrical gyroscopes—a directional gyro and a climb and bank gyro—have been announced by General Electric Co. The former is 1 lb. lighter than the gyro it replaces, and the latter weighs only 3½ lbs. as against 9 lbs. for its predecessor. Each requires only 3¼ in. diameter of space on an instrument panel.

Hydraulic Power Package

A new hydraulic power package has been developed by Adel Precision Products Corp., Burbank, Calif., as a compact, light weight source of power for actuating landing gear and wing flaps in light aircraft. It comprises an electric gear type fluid pump, visual reservoir, adjustable pressure relief valve, thermal relief valve, cylinder by-pass valve and 4-way selector valve connected to manual control. Four inches in diameter and 9 3/16 in. high, it weighs 4.5 lbs. empty and 4.875 lbs. filled. Power requirement is 298 watts at 12 volts.



Add Rotary Table to Jig Borer

A large, non-detachable, precision rotary table built right into the machine has been added to the P&W No. 3B Jig Borer by Pratt & Whitney Division, Niles-Bement-Pond Co., West Hartford, Conn. Two table sizes are available—either 42 or 48 in.—and either will handle holes bored on a diameter of 53½ in. Largest outside work diameter that can be handled is 71 in., although this can be increased to 89 in. if the work does not project more than 14½ in. above the table.

Texas Has New Cold Starting Fuel

The necessity for pre-heating aircraft engines prior to starting in sub-zero temperatures is said to be eliminated by a special fuel which substitutes for high-octane gasoline in the initial stages of cold weather starting. The fuel is made up from the low boiling point fractions not present in aviation gasolines, flows freely in liquid state at all atmospheric temperatures, and does not have to be put up in special pressure-containers. Prior to starting, a tank or bottle of the fuel is attached to the regular fuel lines. Main fuel lines are shut off and the fuel is permitted to run into the engine priming and carburetion system for about two minutes. The temporary fuel connection is cut off by ground crew after engine warmup and the engine then draws regular gasoline from the plane's tanks. The Texas Company, in presenting the product, points out that while it was developed primarily for military operations in the far north, it is applicable to commercial uses wherever cold weather engine starting is a problem. Texas has also recently announced a general purpose aircraft grease known as Regal Starfak Special (AN-G-15) for lubrication between -40° F. and 250° F.

Mobile Firefighting Unit

The Cardox Corp. has placed on the market a motorized fire extinguishing unit termed the 'Transitank,' with applications around smaller airports and in certain aspects of large airport operation such as fueling and engine warm-up. A tank with a capacity of 750 pounds of liquid carbon dioxide is mounted on a motorized three-wheel chassis. Liquid carbon dioxide is stored under pressure in the refrigerated tank and is discharged in "snow" form. One man acting as driver-firefighter can operate the unit. Variations of the basic equipment include non-powered units of the same capacity on pneumatic tires and on casters. Additional information available from the Cardox Corp., 307 N. Michigan Ave., Chicago, Ill.

180-Cycle Vibrators

A new series of 180-cycle vibrators for radio power supply applications has been announced by Electronic Laboratories, Inc., Indianapolis. The frequency of these new vibrators is said to be 65 cycles higher than standard light-duty radio vibrators now in use. The new vibrators will be available in two sizes and six different input voltages—2, 4, 6, 12, 25 and 32v.—wired for synchronous non-synchronous or split-side reed operation, and can be supplied in hermetically sealed cans for aircraft use. The high frequency is said to reduce transformer requirements approximately 40 percent and to cut filter capacity one-third over what would be required with prewar vibrators.

New Thickness Gauge

A new type instrument gauge for measuring the thickness of metal sheet stock and inspecting bonds between the layers of laminated materials has been developed by Glenn L. Martin Co., Baltimore, 3, Md. It operates on the principle of reducing pressure over a given area of the surface being measured or inspected, and measuring the resulting flex in the material.

Collins Transmitters

Two new radio transmitters—the Model 17E-2 for 3105 and 6210 kc voice operation, and the Model 17K-1 for use in the 122-132 mc band—have been announced by Collins Radio Co., Cedar Rapids, Ia. The 17E-2 is a 100 watt transmitter designed especially for executive type aircraft. It is a standard 1 ATR size, weighs only 44 lbs. including the power supply, and features remote control. All circuits are pretuned, a single switch selecting the transmitting frequency. The 17K-1 is a five-channel, crystal controlled unit for commercial and itinerant aircraft. The complete transmitter including a dynamotor power supply is housed in a single ½ ATR unit cabinet, and total weight with control box and interconnecting cable is less than 20 lbs. Power output is conservatively rated at 5 watts.

Radio Round-Up

The aircraft radio division of Lear, Inc., Grand Rapids, Mich., is now marketing an all-in-one transmitter, receiver and direction finder for small aircraft use. Weighing approximately fifteen pounds, the equipment retails through Lear distributors for about $125. In addition to standard radio features enabling a pilot to listen to radio range stations and communicate with control towers, addition of an AML loop provides an aural-null direction finder for navigation. Power output is 5 watts, with a transmitter and receiver drain on the battery of 4.5 amps.

Another recent announcement in the lightweight radio field is the Bassett MC6 transmitter-receiver, weighing three and one half pounds and suitable for either dry battery or for six or twelve volt storage battery operation. Although not a new model, the manufacturer claims a number of recent engineering refinements in the set. The Bassett model MR3A, a dry battery powered receiver for emergency use or for where the requirement is for a very light set, is also being produced by Rex Bassett, Inc., Bassett Bldg., Fort Lauderdale, Fla.

Galvin Mfg. Corp., makers of 'Motorola' radio equipment, has two entries in the aircraft radio field. The 'Navigator' model is a complete transmitter-receiver-direction finder which, with all accessories, weighs slightly over 21 pounds and retails for $263.50. Features include push-button beam reception, automatic reeling antenna, remote controlled shielded tear drop loop, pilot-passenger interphone, ten-watt transmitter, and automatic volume control. Motorola's smaller set is a four pound battery receiver selling at $29 less headphones and batteries.

Technical Booklets

Catalog of Aluminum Alloy Extrusion Dies, final edition, describes over 10,000 dies developed for the aircraft inustry. Issued by Aircraft Standards Committee of the Aircraft Industries Association and available from the printer, John S. Swift Co., 455 W. 30th St., New York, N. Y.

List of training films and filmstrips produced by government agencies during the war has been compiled by Castle Films, Inc., distributing firm located at 30 Rockefeller Plaza, New York, N. Y.

Aeronautics Division, Society of Automotive Engineers, has issued a 53-page booklet which includes membership lists for all committees and sub-committees concerned with aircrift, engines, accessories and materials. Appendices to the booklet provide an up-to-date index of SAE standards and specifications. Booklet is titled "A Challenge Met." Other recent SAE publications include reprints of discussion papers on feeder airplane requirements, fuel sensitivity and engine severity, magnesium alloys, and design of radial engine installations.

"Personal Plane Market" has been analyzed by *Time* magazine. Opinions of aviation leaders and statistics from industry groups and government agencies are included in the 26 pages. Time, Inc., 9 Rockefeller Plaza, New York.

"Air Pick-Up," including equipment and operations procedure, is described in a well-illustrated publication recently released by All American Aviation, Inc., Wilmington, Del.

"Airport Buildings," an 86-page illustrated publication devoted to planning, layout and operating considerations at airports and airparks, has been prepared by the CAA and is available for 20 ceents from Supt. of Documents, Government Printing Office, Washington.

Positive locking aircraft fuel tank caps are described in Bulletin TC issued by the manufacturer, Roylyn, Inc., 8928 Santa Monica Blvd., Los Angeles 45, Calif.

Wood hangar construction and design for personal and commercial purposes, is described in a pamphlet issued by Timber Engineering Co., 1319 18th St., N. W., Washington 6, D. C.

Another hangar, the Bayley prefabricated metal tee hangar, is illustrated in a four-page folder issued by the William Bayley Co., Springfield, Ohio.

Irving Air Chute Co., 1670 Jefferson Ave., Buffalo, N. Y., has published a new illustrated catalog giving details on all types of Irvin packs. The company also has available a 16 mm. sound movie, "Life Preservers of the Air."

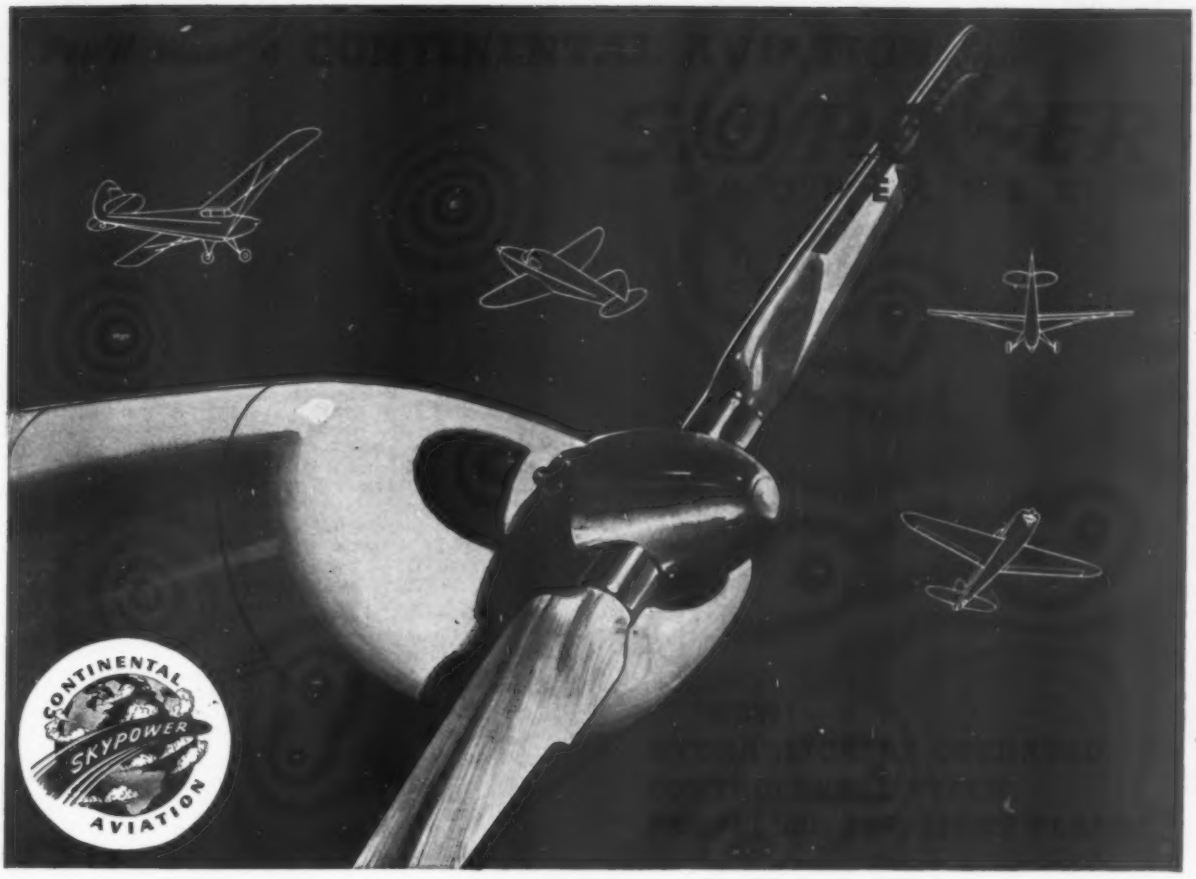
Douglas Aircraft Co. has reproduced a limited number of copies of a technical paper, "Considerations in the Design of Low Cost Wind Tunnels" by Howard E. Roberts, which was presented at the recent meeting of the Institute of the Aeronautical Sciences.

Available from U. S. Forest Products Laboratory, Madison, Wis., is a booklet containing detailed descriptions of methods of test for evaluating cargo flooring for 10 different types of transport aircraft. The booklet, by M. P. Brokaw, is FPL Report 1550.

Kropp Forge Co. has published a 32-page "Glossary of Machine Shop Terms." The semi-hardbound booklet is designed as a practical aid to buyers and user of machined forgings.

A 16-page booklet explaining its cervices in the development of new and improved products has been issued by Hungerford Research Corp. The organization specializes in the application of powder metals and plastics to mechanical and electrical equipment.

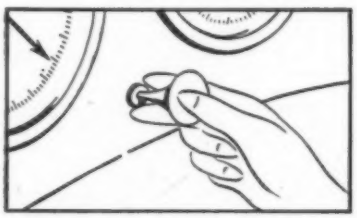
Summerill Tubing Co. has three new "Ostlind Charts" available for insertion in its Aircraft Tubing Data book. They cover alloy aircraft tubing and stainless steel tubing for hydraulic lines.



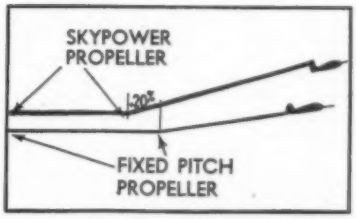
YOUR PLANE WILL BRING MORE PLEASURE, HAVE MORE UTILITY, WHEN YOU INSTALL A SKYPOWER PROPELLER

The engineering and research facilities of Continental Aviation and Engineering Corporation have now created a hydraulically operated controllable pitch propeller for light aircraft. The Skypower Propeller brings shorter take-off, steeper climb, higher ceilings to your present, or future, personal plane. It's simple in design and operation. A push-pull control on the instrument panel operates a stationary hydraulic actuator unit, utilizing the regular engine oil pressure. Force is transmitted to the blades by a simple linkage. The stationary hydraulic system permits the use of fixed oil lines without packing glands and gaskets, and positively prevents leaks. Specially designed Skypower blades provide high performance in take-off and climb, as well as cruising conditions. Easy to install and service, surprisingly low in cost. It is available **now** for planes powered by Continental A-65 and C-75-85 engines. Write to Continental Aviation and Engineering for literature.

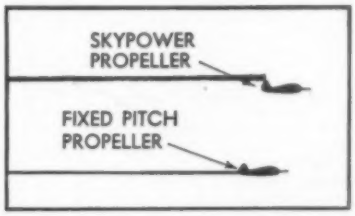
CONTINENTAL AVIATION & ENGINEERING CORP., Muskegon, Mich.



Push IN panel control for take-off and climb; pull OUT for cruising. Positive action sets and holds prop in either position. Can be adjusted to local airport altitude conditions.



You can operate safely from smaller fields or shorter landing strips because Skypower Propeller reduces take-off runs as much as 20% or more — increases rate of climb as much as 27% or more.



Skypower Propeller increases the ceiling, with a given load — increases load capacity at the former ceiling — assures maximum fuel economy. New horizons for your flying.

Personnel Moves Mark Shift of Disposal Work

A reshuffling of personnel, including resignations by some former employes of both RFC and Surplus Property Administration, marked the technical transition of surplus property disposal from War Assets Corp. into War Assets Administration on Mar. 25 under the terms of a Presidential order.

Brig. Gen. John J. O'Brien now heads the real property division with Arthur W. Manley in charge of the airports branch. Bradley Saunders, former chief of the airport disposal section of aircraft and airports division, will serve under Manley. Vacancy caused by the resignation of Richard H. Depew, director of sales division–aircraft, has been filled by his assistants—Ralph Sterns and Raymond Phelps. Brig. Gen. James A. Mollison is head of the aircraft division. Thomas A. Wadden and James A. Garfield are his assistants. Other assistants to Gen. Mollison are: Lt. Comdr. H. H. Sherburne, formerly director of the aviation division of SPA and Paul Bonner, formerly special consultant to William Harding at SPA. Floyd Brinkley is in charge of the information section.

Other resignations, effective Mar. 22 were those of Col. John M. Redding, assistant administrator, public information and group relations, aircraft division, and Standford J. Stelle, chief of maintenance and salvage.

War Asset Corp. activities in disposal matters during the past fortnight included the following: received tentative authority, through a State Department-British agreement, to dispose of Merlin engines to U. S. educational institutions; established price tags on Grumman Widgeon aircraft which cost the government on an average of $27,600 at $12,000 for types in below average condition, $16,000 for those in average condition, and $20,000 for those above average condition; sold Pennsylvania-Central Airlines the last of the basic Douglas DC-4 airplanes—a C-54 which had been damaged in a crash at Casablanca. PCA, which now has all 20 of the original DC-4 basic types, will use the last acquisition for cannibalistic purposes.

The Corporation announced the offering for sale of 330 surplus used Pratt & Whitney Wasp Jr. 450-hp aircraft engines at a flat price of $450 each. Twenty-one aviation manufacturers, distributors, supply houses and others acting as agents were reported to have received by Mar. 1 surplus materials having an original value of more than $29,000,000.

Bids were asked for the purchase of 65 surplus gliders at the WAC office, Atlanta, Ga. by noon of Apr. 5. The gliders have been divided into four lots, according to model, and each bid must be submitted for the entire lot. The gliders are stored at Southern Airport, Americus, Ga.

WAC also announced that a considerable number of AT-11 Beechcraft twin-engine aircraft, approved for type certification by CAA, have been placed on sale.

Drew and Peters Open Business

A new firm of Drew and Peters has been formed in Buffalo, N. Y., to serve as technical and business consultants for companies and communities engaged in planning aviation developments. John L. Drew until recently was sales research manager for the Airplane Division of Curtiss-Wright Corp. at St. Louis and Buffalo, while Earl C. Peters carried out special engineering assignments for the C-W Airplane Division during a six-year period.

Engineering Preview

INDUCTION SYSTEM fires which gave the Army considerable trouble in its R-3350 powered B-29s have cropped up recently to plague the airlines operating 3350-powered Constellations. The remedy in the case of the 29s was a switch to fuel injection from carburetion, and the airlines probably will be forced to the same alternative although it is expected to add considerably to engine maintenance. Two other possible remedies providing fuel distribution were worked out at the NACA laboratories in Cleveland during the war, and may be investigated by the airlines before any final decision is made.

While estimated direct operating costs according to the ATA formula are the best method available for evaluating the comparative economy of different types and makes of aircraft, operators and manufacturers alike are running a serious risk of creating a false impression of economy when they publicize such figures to the general public. Like all formulae of its type, the ATA formula is based necessarily on assumptions, and actual operating costs may well be considerably higher. One factor in particular that is not taken into consideration is size of fleet, yet actual figures for various lines on DC-3 operations show that cost per aircraft mile goes down in almost a direct ratio as the number of aircraft in a particular airline's fleet goes up.

A wartime project which should prove of great value to the commercial airlines is the development of "wind-finding" equipment to provide data on conditions in the upper air by the Navy and the National Bureau of Standards. The equipment gives data on speed and direction as well as the barometric pressure, humidity and temperature data obtained by the radiosonde. It utilizes what is known as a corner cube reflector and a special type of radar transponder known as a pulse repeater.

RCA and the Army plan to install experimental Teleran equipment in a Link trainer in the near future to determine whether it is or is not easier for the pilot to absorb the information he needs from a pictorial presentation than from the normal group of gages and dials.

Westinghouse has developed a compact, lightweight gear especially designed for reducing the 12,000 rpm speed of a gas turbine to 1,200 rpm at the propeller. The new gear is of the sun and planet type and weighs only about 1/30th as much per horsepower as a standard industrial gear.

Ten specially equipped Northrop P-61 Black Widows will be used by the AAF this spring and summer in a series of flight tests to collect fundamental data for flying through thunderstorms and major weather hazards. The aircraft will be flown through and around storms in the Orlando, Fla., area.

Not even radar in its ultimate state of future perfection could have prevented the recent American Airlines crash, according to engineers who investigated the accident. Instead they ascribe the crash to an unpredictable freak turbulence that caused an Army plane flying in the same general area to drop 7,000 ft. before the pilot could regain control.

What is claimed to be the first commercial installation of automatic propeller synchronization is now being made on C-54s undergoing conversion for Chicago & Southern Air Lines. An electronic synchronizer developed by Hamilton Standard will be used.

SYDNEY CARTER.

AIA Seeks to Boost U.S. Aviation Interests In Foreign Countries

The advancement of U. S. aviation interests abroad is the primary goal of a program now underway for developing close cooperation between the manufacturing industry and U. S. Military Air Attaches and Military Air Missions throughout the world. Such cooperation, notably lacking before the war, is seen as mutually beneficial to military and industry interests.

As a step forward, the export committee of the Aircraft Industries Association at a luncheon session on Mar. 14 honored 16 U. S. military air officers about to leave for their posts in Great Britain, Soviet Russia, Brazil, Cuba, South Africa, Siam, Turkey, the Netherlands, Egypt, India, Paraguay, Colombia, and Honduras.

Maj. Gen. Clayton Bissel, ranking officer among them and the new Military Air Attache in Great Britain, told industry representatives how to secure cooperation of U. S. officers stationed abroad, pointing out that the manufacturers need be at no disadvantage in this respect as compared with British or other competitors. A. O. (Dick) Pierrot, who recently returned from assignment as Civil Air Attache to Spain and Portugal, gave an account of his negotiations with those governments on behalf of U. S. international airlines.

A plan to keep U. S. overseas air attaches and officers advised of aircraft manufacturing developments is being arranged by John H. Payne, export director of AIA.

More Companies Undertake Transport Conversion, Overhaul

Conversion and overhaul of transport aircraft continued its upswing as a major activity among the airlines, aircraft manufacturers, fixed base operators and aviation specialist firms last fortnight.

Among major manufacturers announcing activities in this field were Boeing Aircraft Co., and Lockheed Aircraft Service, a division of Lockheed Aircraft Corp. At least three new specialist companies entered the field.

Boeing was doing an overhaul and modernization job for Wien Alaska Airlines on its Boeing 247-D equipment, while Lockheed had in its service shops three Lodestars purchased by British West Indian Airways from surplus Army stock. They will be converted to 14-passenger transports.

Matson Navigation Co., purchased a DC-4 to be used chiefly in the operation of Matson's Air Transport Division in San Francisco. The division is engaged in converting and overhauling multi-engined aircraft for the Netherlands government and others.

These were other developments on the conversion front:

- Beverly E. Howard, president of Hawthorne (S.C.) aviation activities, set up Hawthorne Airmotive at Orangeburg, S. C., as a master overhaul and repair base.
- Charles H. Babb Co., international aircraft sales and supply organization, acquired Eastern Air Lines' hangar at Newark Airport, will use it for servicing and reconditioning aircraft beginning May 1.
- Lodwick Aviation Corp., Lakeland, Fla., delivered a converted B-25 to Shell Oil Co., for use by Jimmy Doolittle, Shell vice president, as a "flying laboratory." The plane was stripped of its military gear, but carried no plush accoutrements for passengers.
- Sentinal Aircraft, Inc., newly organized Ann Arbor, Mich., firm, will undertake conversion of L-5 "flying jeeps" to civilian aircraft. The company plans eventually to manufacture new aircraft at its plant.
- Goble Aircraft Specialities, Inc., Flushing, N. Y., organized by Gene W. Goble, will include among its activities maintenance and servicing of aircraft. Other activities will include manufacturing and sales rights to new inventions and devices to be merchandised through distributors or manufacturers.

Represents CAA at Boeing

Vernon L. Gardner, new CAA manufacturing inspection representative for the Pacific northwest area, has established headquarters at Boeing Aircraft Company's plant 2 in Seattle. He will work with Boeing engineers in tests and developments concerning the airworthiness requirements and certification of the Stratocruiser. Assigned to the CAA's 7th Region, Gardner also will represent the agency in other aircraft factories in Washington, Oregon, Idaho and Montana.

Aircraft Acceptances Increase

Aircraft acceptances by the Army and Navy, excluding experimental types, totaled 175 in February, compared with 163 in January, according to official figures received from military sources. The Army received 119 and the Navy 56. By types the February total included 12 bombers, 99 fighters, 5 transports, 4 rotary wing and 55 special purpose craft.

Manufacturing Personnel

W. Art Mankey, well known aircraft engineer formerly with Ryan, Northrop, Glenn L. Martin and Bell, has been appointed assistant to **T. Claude Ryan**, president of Ryan Aeronautical Co.

David E. Lukens has been named engineering representative for Autogiro Company of America, Philadelphia, a responsibility he will carry on in

Mankey Czarnecki Lukens

conjunction with his present position as sales engineer of Summerhill Tubing Co., Bridgeport, Pa.

Sigmund A. Czarnecki, associated with Hamilton Standard or its predecessor companies for the past 19 years, has been named production engineer for Hamilton Standard Propellers division, United Aircraft Corp. **Ermano Garaventa** has been promoted to process development engineer. Additional Hamilton Standard assignments are: **A. F. Mannella** in charge of hub production, plating, heat treating and assembly, assisted by **A. V. Mayo** and **Adolph Hartig** as general foreman of the hub department; **W. J. Kamerer**, assistant production superintendent in charge of operations, West Hartford plant, with the assistance of **Floyd White** as general foreman; **C. A. Krause**, production superintendent for blades, with the assistance of **Harold Solum** as general foreman for aluminum blades and **Maxwell Pounder** as general foreman for steel blades.

Cole Paul Walloch

Willard S. Paul has been named production manager of Beech Aircraft Corp.

Al Walloch, division superintendent of Boeing Aircraft Co.'s fabrication area, is the youngest person to receive the company's 25-year service pin.

Capt. Fred Cole becomes foreign sales manager of General Textile Mills, manufacturers of a non-oscillating "baseball" parachute.

Dr. Edward S. Gwathmey has joined Specialties, Inc., as director of research.

Bernard Schaffer, formerly with American Airlines, has been appointed assistant chief engineer of Greer Hydraulics, Inc.

Karl H. Dittmann has been named chief of sales engineering, aeronautical, instrument division, Thomas A. Edison, Inc. Additional appointments in the division include: **Raymond A. Lewthwaite**, chief of design and drafting; **Hayward K. Mann**, chief of sales engineering, controls; **Dwight A. Wrigley**, aeronautical products engineer; **Frank M. Devonald**, aeronautical design engineer; **George A. Compton**, aeronautical sales engineer; and **Robert Sentennac** and **George J. Bindewald**, assistant aeronautical engineers.

Swirbul Receives Medal for Merit

Leon A. Swirbul, executive vice president and general manager of Grumman Aircraft Engineering Corp., on Mar 14 received the Medal for Merit for outstanding service to the U. S. in the design and production of aircraft supplied to the Navy during the war.

Clinton E. Stryker Heads Adel Precision Products

Clinton E. Stryker, formerly vice president and assistant to the president of Nordberg Manufacturing Co. of Milwaukee, has been elected president and general manager of Adel Precision Products Corp., Burbank, Calif. Henry S. Wright is chairman of Adel's board of directors.

Adel is now manufacturing a hydraulic Dual Power Package for retractable landing gear and wing flap systems, and other hydraulic units.

Hunsaker Succeeds Gardner As Director of Sperry Corp.

Dr. Jerome Clark Hunsaker, head of the department of mechanical and aeronautical engineering at MIT, and chairman of NACA, has succeeded O. Max Gardner, new Under Secretary of the Treasury, as a director of Sperry Corp.

Dr. Hunsaker also succeeds Gardner as a director of the Sperry subsidiaries—Sperry Gyroscope Co., Ford Instrument Co., Vickers, Inc., and Wheeler Insulated Wire Co.

NATA Staff Hit 2nd Time As Bowman Resigns Post

The second resignation in recent weeks hit the National Aviation Trades Association executive staff when Leslie H. Bowman, of Aircraft Sales Co., Ft. Worth, Tex., quit as chairman of the board last month. Reasons given for resignation were the time required for attending to his sales business and the feeling that his efforts as NATA chairman have not been as productive as they should have been.

Earlier, Beverly Howard, president of Hawthorne Air Service, Orangeburg, S. C., resigned as NATA first vice president for similar reasons. Both are retaining their NATA memberships.

Goodrich Acquires Division

B. F. Goodrich Co., has acquired the airplane wheel and brake division of Hayes Industries, Inc., Jackson, Mich., and will supply complete tire, tube, wheel and brake assemblies to the industry. Wheel and brake manufacturing will continue at Jackson for the present.

Palmer Nicholls Directs West Coast Bendix Division

Palmer Nicholls, vice president of Bendix Aviation Corp. and general manager of the organization's Pacific Division, has been named vice president and group executive in charge of Pacific Division and West Coast Bendix, the latter being a newly formed division to handle west coast sales and service for the corporation's eastern divisions.

Nicholls

Mel M. Burns, assistant general manager of Pacific Division, becomes general manager of that division, and R. C. Fuller, Pacific Division sales manager, has been placed in charge of West Coast Bendix with the title of general sales manager.

United's Net Profit Drops $2 Million to $4,203,815

Braniff, Colonial Show Gains Of $849,839 and $173,329

UNITED Air Lines reported net profit for 1945, after taxes, of $4,203,815, equivalent to $2.34 per share of common stock and $49.13 per share of preferred. This compared with net income of $6,-144,991 in 1944.

United showed operating revenues of $39,347,790 in 1945, compared with $35,-629,965 for the previous year. Operating expenses totaled $31,635,914, an increase of 31% over 1944. Provisions for federal and state income taxes totaled $3,402,000.

The company said the unprecedented gross would have been reflected in rising net income despite rising cost had it not been for a reduction of approximately 11% in passenger fares and 25% in mail rate pay.

- Braniff Airways reported a net profit of $849,839 after provision for federal and state income taxes for 1945. Earnings were derived as follows: 84% from transportation of passengers, 7.54% from mail, approximately 3% from express and freight, and 5.7% from other sources.

The company paid 41% of earnings in salaries and wages, 7.31% for gasoline and oil, 5% for repair parts and supplies, 3.7% for passenger meals and expenses, 7% for rentals, telephone and telegraph, 2.8% for advertising, 2.7% for insurance, 7.7% for taxes, 5.7% for depreciation, and 5.9% for all other expenses.

- Colonial Airlines earned $173,329 before income taxes in 1945. This compared with a deficit of $28,839 for 1944. The 1945 earnings did not include income from new routes which were not in operation, but had to absorb development expense.
- National Airlines reported a net loss of $193,570 for the six months to Dec. 31, 1945. This compared with a loss of $23,787 for the similar period in 1944.
- Delafield & Delafield, New York investment advisers, predicted that few industries face so bright a prospect for increase in volume of business as do the airlines, but future profits are threatened by lower fares and higher operating costs unless the load factor in using large, fast planes can be maintained at a reasonably high level.

Financial Comment

by

I. W. Burnham, II

of

Burnham & Company

Members of New York Stock Exchange

IN RECENT weeks analysts in industry and the financial community have attempted to appraise the size of the post-war aircraft market. The resultant sales estimates vary considerably. Although the immediate demand for commercial planes is comparatively a known quantity, expenditures of the military will depend upon the size of Congressional appropriations. To date it has not been finally determined to what extent military expenditures will be divided between procurement and experimentation. The valuation of aircraft manufacturing securities, therefore, resolves into an attempt to relate present market prices to current tangible factors rather than to those factors composed of a combination of past performance and future estimates.

The nebulous area in which financial analysts are attempting to estimate earnings and dividend potentials has forced attention to one factor which, aside from all others, may give some indication as to the present worth of aircraft manufacturing securities. Book value of aircraft manufacturing concerns has steadily increased during the war years, as dividend disbursements have been moderate in relation to earnings and depreciation and other non-expendable charges have been large. Other evaluation factors such as the effect of reconversion upon each company's operation, the backlog of new orders, and post-war earnings and dividend potentials will overshadow the present importance of book value as they become more distinct determinants of security value.

The following data show for several leading manufactures the comparison between current market prices, the latest available book value and that at the end of 1940, and the peak market price for 1940. In most instances market price is lower than the latest available book value figure, which is presumed to be higher at the end of 1945. This is indicative of some uncertainty in the opinion of the investing public as to whether future earnings and dividend payments can support market prices approximating current book value.

Manufacturer	Market Price 3/16/46	Latest Book Value[1]	Book Value 12/31/40	Peak Market Price in 1940
Boeing	$33	$40	$8.90	$28
Consolidated Vultee	31	40[2]	8.30[6]	16[6,7]
Curtiss-Wright	10	12	5.00	11
Douglas	107	112[2]	36.70[5]	95
Grumman	49	40	5.90	25
Lockheed	41	47[3]	15.70	42
Martin	44	49	19.30	48
North American	15	12[4]	3.70	27
Republic	20	11	.40	7
United Aircraft	34	34[3]	14.60	53

[1] As of 12/31/44 unless otherwise indicated.
[2] As of 11/30/44.
[3] As of 6/30/45.
[4] As of 9/30/44.
[5] As of 11/30/40.
[6] Consolidated Aircraft Corp.
[7] Adjusted for 2 for 1 split.

PCA, NEA Stockholders Approve Merger Proposal

Stockholders of Pennsylvania-Central Airlines and Northeast Airlines last fortnight approved a merger proposal under which PCA would fuse within its system the routes and equipment of Northeast, subject to CAB approval.

Exhibits were filed with the CAB March 25 and hearing was scheduled for April 29. In the special meeting of PCA stockholders at Washington March 20, roughly 132,000 shares were voted for the merger, 10,000 against.

Piper and Menasco Mfg. Report Sales and Profit

Piper Aircraft Corp., reported net operating profit of $599,442 for the fiscal year ended Sept. 30, 1945, which after taxes and special charges netted in $143,152 being transferred to surplus, equal to 21 cents per common share.

Menasco Manufacturing Co., reported sales totaling $2,375,048 for the six months ended Dec. 31, 1945. The company has an indicated net operating loss of $180,929 for the six months period. Earned surplus as of Dec. 31 was $529,258.

Comparative Air Carrier Safety Statistics in Scheduled Domestic Operation for the Fiscal Years 1937-1945

Description	Fiscal years ended June 30—								
	1937	1938	1939	1940[1]	1941	1942	1943	1944	1945
Revenue miles flown	64,732,206	67,039,655	73,645,014	95,396,087	123,350,232	135,277,003	98,187,809	117,389,242	179,703,872
Total number accidents (major and minor)	50	31	36	34	42	31	25	18	48
Total number fatal accidents	7	5	4	0	5	5	2	4	7
Revenue miles flown per accident (major and minor)	1,294,646	2,162,570	2,045,695	2,805,767	2,936,910	4,363,774	3,927,512	6,521,625	3,743,830
Revenue miles flown per fatal accident	9,247,471	13,407,931	18,411,253	0	24,670,046	27,055,401	49,093,905	29,347,311	25,671,982
Passenger fatalities	41	39	13	0	41	62	22	44	80
Pilot fatalities[2]	6	5	1	0	5	4	2	4	7
Crew fatalities (other than pilot)	11	8	4	0	9	10	5	7	8
Total fatalities	58	52	18	0	55	76	29	55	95
Total revenue passenger miles flown	405,153,669	444,177,900	549,364,699	860,818,812	1,187,133,723	1,518,432,185	1,427,385,825	1,835,224,489	2,830,597,814
Revenue passengers carried	937,229	1,071,899	1,383,423	2,240,023	3,216,469	3,986,220	2,769,172	3,309,696	5,137,877
Percent passengers fatally injured	0.0044	0.0036	0.0009	0	0.0013	0.0016	0.0008	0.0013	0.0018
Passenger miles flown per passenger fatality	9,881,797	11,389,177	42,258,823	0	28,954,481	24,490,842	64,881,174	41,709,647	35,382,473
Passenger fatalities per 100 million passenger miles	10.1	8.8	2.4	0	3.5	4.1	1.5	2.4	2.8

[1] No fatal accident occurred during the year 1940.
[2] Includes pilots only; copilots are included in the category of "crew."

Leading Aviation Securities

(Courtesy of Burnham & Co.)

NEW YORK STOCK EXCHANGE

AIRLINES	1946 High	1946 Low	Range for 6 Days Ended 3-8-46 High	Range for 6 Days Ended 3-8-46 Low	Range for 6 Days Ended 3-15-46 High	Range for 6 Days Ended 3-15-46 Low	Two Weeks Net Change
American Airlines	86¼	71	76½	71¾	77½	72	+ 4½
Braniff Airways	34⅝	25⅝	27⅜	26½	27⅜	25⅝	— 1
Eastern Air Lines	123½	98	115¾	102	112½	107¾	+ 9¾
National Airlines	34⅞	24½	29	28⅛	28⅞	24½	+ 2⅝
Northwest Airlines	56½	45	48½	46¾	48	45½	— ½
Pan American Airways	27	20½	22⅛	21½	22¼	20½	— ⅜
Penn.-Central Air.	45¾	36½	39⅞	38	39½	37¼	— ⅝
Trans. & Western Air	71	51⅝	59	56¾	57	51⅝	— 2
United Air Lines	54¼	42	45½	42¾	44¾	42½	— ⅝
Western Air Lines	35	27	29½	28	28	27¼	....
MANUFACTURERS, ETC.							
Aviation Corp.	14⅞	9⅜	12½	11⅞	12	11	— ⅜
Aviation Corp pf.	83½	59¼	73	70	71¼	65½	— 5
Beech Aircraft	23¾	14⅞	22½	21½	23⅛	21⅛	....
Bell Aircraft	35½	25⅛	29¼	26½	30¾	28⅛	+ 1⅛
Bendix Aviation	58	50	52¾	51	52⅞	50	....
Boeing	33¾	26½	29¾	27½	31⅞	28½	+ 3⅜
Cons. Vultee	33⅜	26¾	29¾	27⅜	30½	28½	+ 2
Continental Motors	24	17½	20⅜	19	20⅜	18¼	— 1½
Curtiss-Wright	12¼	7¾	10⅛	9½	10⅛	9¾	— ¼
Curtiss-Wright "A"	34⅛	27	32½	30¼	32½	30½	+ ½
Douglas Aircraft	104½	90½	100⅞	91¾	104½	95	+ 10⅜
Grumman Airc. Eng.	52	42	45⅜	42	47½	44	+ 4⅞
Lockheed Aircraft	45¼	35½	40⅜	37	40⅝	39	+ 1½
Martin, Glenn L.	45½	37¼	41¾	40¼	43¼	40¾	+ 2⅜
National Aviation	28¾	23¼	24½	23½	24⅝	23½	+ ½
North Am. Aviation	16⅝	13¼	14⅝	14⅛	14⅝	13¾	— ¼
Republic Aviation	21⅜	15¾	19⅜	18½	20⅜	18⅛	+ 1
Sperry Corp.	40½	33	34⅞	33½	34⅝	33	— ⅜
United Aircraft	37⅜	31⅜	33¾	32	33⅛	31¾	— ¼
Wright Aero.	106	91	98	91	....	....	....

NEW YORK CURB EXCHANGE

AIRLINES							
Colonial Airlines	43	27½	30⅞	29	30¾	27½	— 1½
Northeast Airlines	21⅞	17½	19¼	18¼	18½	17½	— ¾
Pan American Air. war.	14	9⅛	10⅜	9⅝	10¼	9⅛	— ⅝
MANUFACTURERS, ETC.							
Aero Supply 'A'	22¾	21⅞	....	....	....	....	....
Aero Supply 'B'	7¾	5⅜	7⅛	6¾	7	6½	— ⅜
Air Associates	23½	15	19½	19¼	20	19	— 1½
Air Investors	5¾	5¼	5¼	5¼	5⅜	5¼	+ ⅛
Air Investors cv. pf.	....	....	....	....	....	....	....
Aireon Mfg.	17½	12⅛	15	14	14⅜	12⅛	— 1⅞
Aireon Mfg. pf.	22¾	16	19½	18	18½	16	— 2⅛
Aero Equip	27½	21¾	22¾	22½	22½	21¾	1
Bellanca Aircraft	9½	6¾	8¼	7⅝	8¼	7½	— ½
Breeze Corp.	31½	21⅞	26	25	26½	25¼	— ⅛
Brewster Aero.	5½	4⅞	5⅛	5	5¼	5	....
Cessna Aircraft	10¼	6¼	8¼	8¼	8⅝	8	— ⅜
Fairchild C. & I.	17⅞	13¾	16½	15¾	16¼	15½	— ¾
Fairchild E. & A.	8⅜	5⅝	7½	7⅛	7½	7	— ⅛
Fairchild E. & A. pf.	115	78	105	99	101	100	— 3
Irving Air Chute	13½	11	12	11½	12¼	11½	....
Northrop Aircraft	14¼	10⅞	14⅛	12	14¼	13½	+ 1¾
Piper Aircraft	15¼	7⅝	12⅛	11⅛	11¼	10	— 2
Roosevelt Field	6⅞	5¼	5⅞	5½	5½	5¼	— 1
Ryan Aero.	10¼	8¾	9	8½	8¾	8¾	....
Solar Aircraft	23⅞	17¾	22⅛	20⅝	23¼	21⅜	+ 2⅛
United Aircraft Prod.	29½	22⅝	25	23¾	24⅜	22⅝	— 1⅜
Waco Aircraft	9⅝	6¼	8	7⅜	9	8	....

OVER-THE-COUNTER

AIRLINES	March 8, 1946 Bid	March 8, 1946 Asked	March 15, 1946 Bid	March 15, 1946 Asked
Air Cargo Transport	7½	7¾	7¼	7½
Alaska Airlines	10½	11¼	10	10¾
All American Aviation	13¼	13⅝	12½	13
American Overseas Airlines	71	75	71	75
Chicago & Southern Air Lines	28½	29	27½	28½
Continental Air Lines	23½	24½	23¾	22¾
Delta Air Lines	50½	52½	50	51½
Expresseo Aereo	8¾	9¼	7¾	8¼
Inland Airlines	10½	11½	10½	11½
Mid-Continent Air Lines	17¼	17¾	16½	17¼
TACA Airways	18	18¾	17½	18¼
MANUFACTURERS, ETC.				
Aeronautical Products	7½	7¾	7¼	7⅝
Aeronca	9¼	9¾	9¾	10½
Aircraft & Diesel	2¾	3¼	2⅞	3¼
Airplane & Marine	19	21	21	24½
Central Airport	1½	2½	1½	2
Columbia Aircraft	¾	1½	¾	1½
Continental Aviation & Eng.	3¾	4	3¾	4
General Aviation Equip.	5½	6¼	5	5¾
Gladden Products	3½	3¾	3⅝	4
Globe Aircraft	7	7¼	6⅝	6⅞
Harlow Aircraft	⅞	1⅛	⅞	1⅛
Harvill Corp.	4¼	4⅝	4	4⅜
Interstate Aircraft & Engine	13	14½	13½	14½
Kellett Aircraft	4¾	5	4⅝	5
Liberty Aircraft	24	24½	23	23½
Luscombe Airplane	4	4⅜	3½	3⅞
Menasco Mfg.	6½	7	6¾	7¼
Pacific Airmotive	16	16¾	15¼	16
Pollak Mfg.	13½	14¼	13	13¾
Standard Aircraft Prod.	5	5¼	4¾	5⅛
Taylorcraft	6½	7¼	6½	7½
Timm Aircraft	3⅝	3⅞	3⅝	3⅞

2,047 Craft Produced Under Type Certificates

A total of 2,047 civil aircraft were produced in 1945 under CAA type certificates, according to figures compiled by the CAA's office of aviation information. The pre-war pattern was followed closely with two-place planes powered by 51-100 hp. engines accounting for 94% of the total. Although the production rate since V-J Day showed sharp acceleration, from 39 in August to 797 in December, output must continue to advance rapidly if the industry is to turn out its announced goal of 30,000 planes in 1946—a monthly average of 2,500.

The 1945 statistics showed production of 28 amphibians and 2,019 landplanes, including 1,929 of 2-place variety, 6 of 3-place, 11 of 4-place, 63 of 10-place, and 10 of 57-place types.

Classified Advertising

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WANTED a pilot with some air line pilot experience to represent a well-established employee-representing organization. This is not a flying position. Executive work only with some travel. Employer-employee relations handling ability necessary. Veteran preferred. Box 449, American Aviation. American Building, Washington 4, D. C.

Ryan Manifold Contracts

Contracts totaling more than $2,500,000 in new exhaust manifold business for the Ryan Aeronautical Company's stainless steel manufacturing division have been signed in the last 60 days. Under the contracts just signed, Ryan manifolds will be standard equipment on the Boeing C-97's and on the Douglas DC-6's. Another contract just obtained is one with General Electric for parts for that company's new "prop-jet" power plant. Ryan manifolds will also be furnished under the new contracts for the B-50, new version of the B-29.

More Detroit Confusion

Recent action of the Detroit City Council in voting 7 to 1 to designate Wayne County Airport as the city's airline terminal has further confused the situation for the airlines operating into the Michigan metropolis. Since this action was taken, the Detroit Airline committee has taken no further action as to obtaining a new site. PCA, operating Douglas DC-4s between Chicago, Washington and Norfolk, is continuing to use Wayne County airport for a technical stop, but is not taking on or discharging passengers in Detroit on those flights.

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